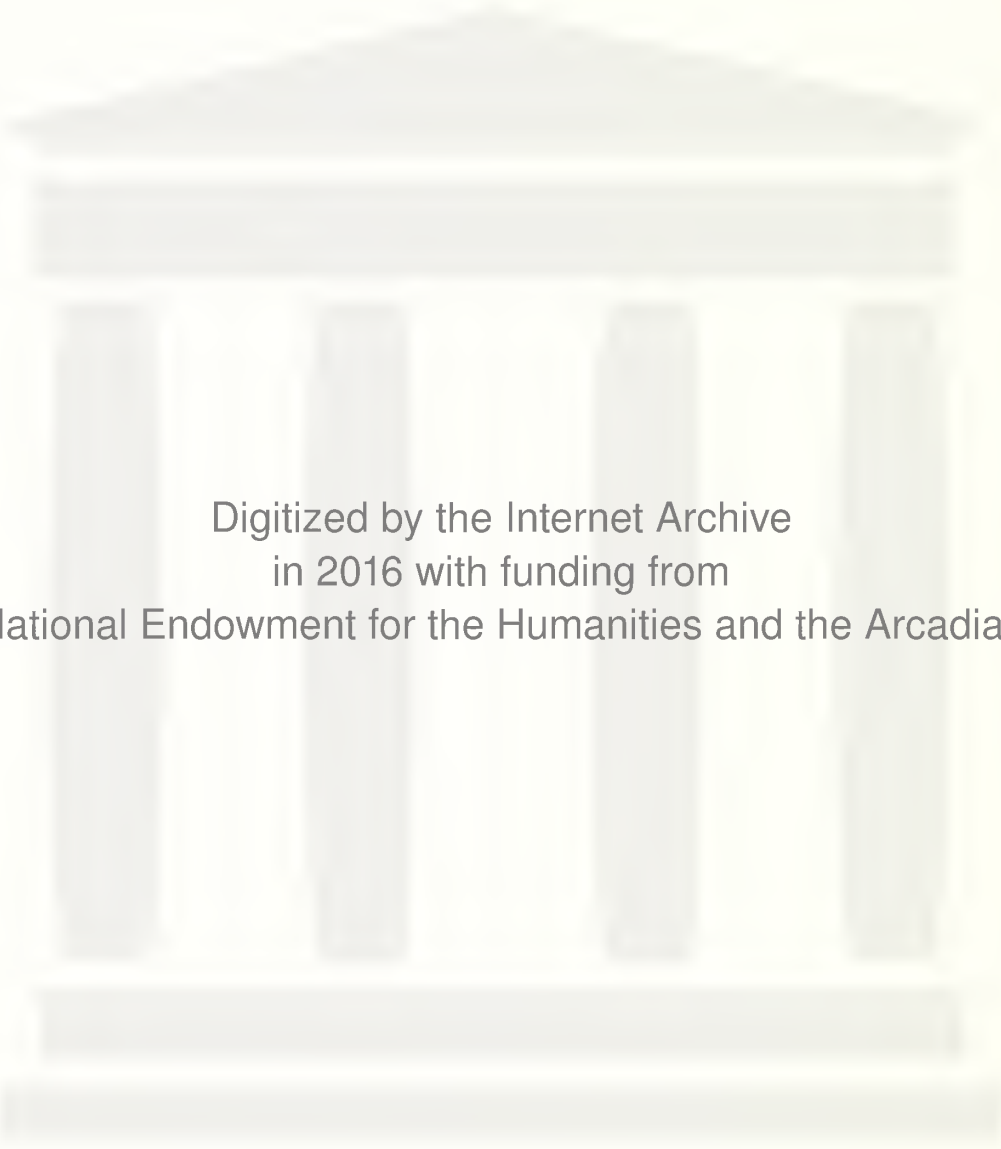


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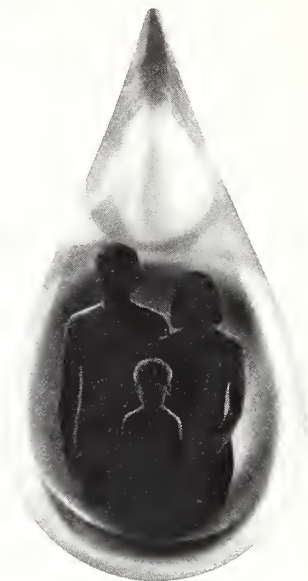


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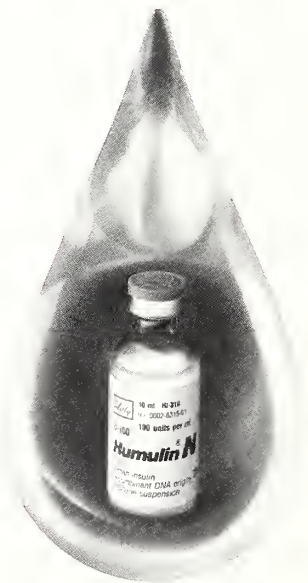
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NEXT MONTH

The Management of Intoeing: A Review
USD School of Medicine
Hand Tumors, Extraskelatal Chondroma
and Osteoma: Case Reports

About the Cover
After heated battles with Mitchell and Huron, Pierre finally won and began the South Dakota State Capitol building in 1907 and completed it three years later. The Capitol, which houses the Governor's office, Supreme Court, House and Senate, recently was restored and again reflects the lavish colors and majestic splendor of 1910. (Photo courtesy of the South Dakota Department of Tourism).

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Physicians should be aware that if additional data becomes available or a clinical course is initiated that requires acute care hospitalization, that patient may then require acute care hospitalization.

These guidelines should permit additional flexibility in the care of patients who need observation.



The State of South Dakota's Child: 1989

Ann L. Wilson, Ph.D.¹

Editorial Note:

In this year's annual report on the "State of South Dakota's Child" the important issue of child abuse and neglect is addressed. In an effort to broaden the state's understanding of this complex and sad reality, the School of Medicine's Department of Pediatrics and the South Dakota Department of Social Services have developed a handbook on child abuse for physicians in the state who care for children. This handbook will be distributed in the coming months. We are very pleased with this cooperative effort and hope it will be of value to your important work in preventing child maltreatment and responding to the needs of children and their parents when abuse or neglect occurs.

R.C. Talley, M.D., Vice President/Dean
USD School of Medicine
Sioux Falls, SD

ABSTRACT

The 1987 infant mortality in South Dakota returned to a rate below that of the nation as had been the trend for the eight years prior to 1986. Comparisons of South Dakota and United States data show that for both whites and non whites the mean five year neonatal mortality rates were below those of the nation. Alternately, the South Dakota white post neonatal mortality rate is slightly higher than that of the nation and the non white post neonatal mortality rate is more than three times higher than that of the United States. Comparisons of the causes of post neonatal deaths show that the relative risk of death from potentially preventable causes is four times higher among South Dakota non whites as whites. The paper concludes with a discussion of the incidence of child abuse and neglect and the important role health care providers may play in preventing and treating this cause of significant mortality and morbidity of children.

This annual report to the Journal on South Dakota's children, reviews infant mortality and in addition this year will also specifically discuss the incidence of abuse and neglect of children in our state. While the status of the youngest citizens of South Dakota requires the careful attention of all those invested in their welfare, health care professionals have a unique opportunity to monitor and support children's development. This report will provide broad parameters for measuring the health and well being of South Dakota's children.

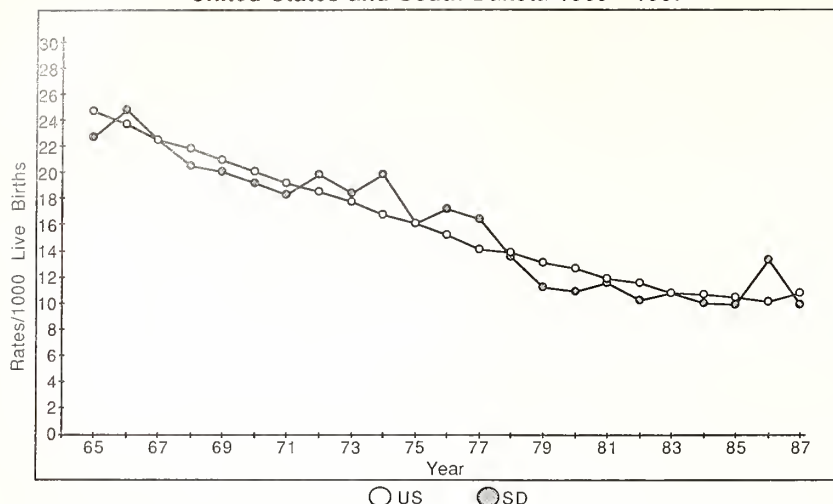
1. Professor, Departments of Pediatrics and Psychiatry, School of Medicine, University of South Dakota, Sioux Falls, SD.

Infant Mortality

Figure 1 presents a comparison of South Dakota's infant mortality rate (IMR) with that of the nation. Very apparent is the state's 1986 rate that is clearly discrepant from its previous and continued downward trend. Not since 1977 had South Dakota's infant mortality rate been higher than that of the nation. In 1987 the state's IMR was 9.92 and returned to a rate lower than the 10.08 rate of the United States.

As noted in last year's "State of the Child" report, the 1986 increase in the IMR from that of 1985 could largely be attributed to an increase in the number of deaths due to congenital anomalies and to birth weights of less than 500 grams.¹ The high 1986 rate received considerable public attention with the Children's Defense

Infant Mortality Rates **United States and South Dakota 1965 - 1987**



Data from National Center for Health Statistics

Figure 1

Fund's publicity regarding how the state's rate for this year placed South Dakota 50th in a national ranking of infant mortality rates. While this was indeed the case, the 1987 final rate returns the state to a midway point in a ranking of the states as has typically been the case for the recent past.

While the number of births of non-viable infants probably played a significant role in the high rate of infant deaths in 1986, our small base of births demands that great caution be exercised whenever one year's data from South Dakota are examined. Only four other states in the nation have fewer births per year than does South Dakota and the state's birth rate is declining having decreased by 16% since 1980.^{2,3} In 1987 there were 11,493 new babies born in the state and since mor-

tality data are expressed per 1,000 live births, one can see how slight variation in the number of deaths can easily affect rates.

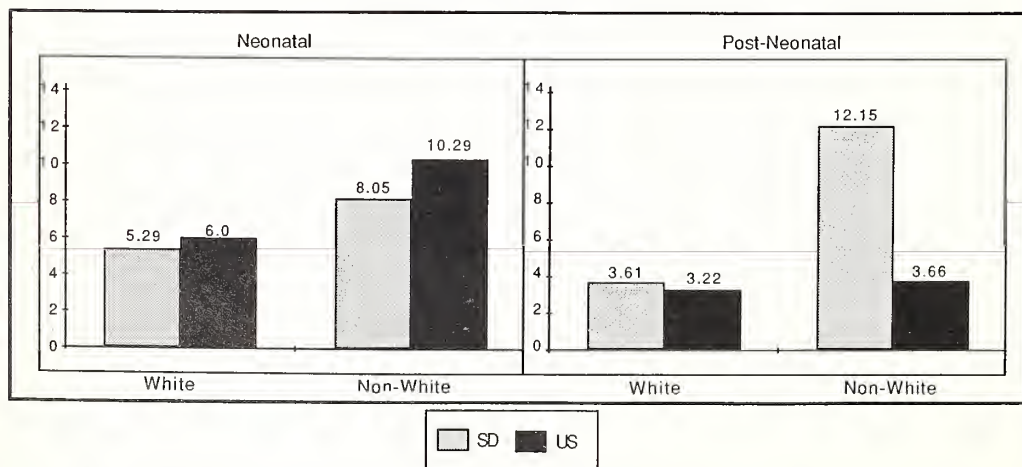
Figure 2 presents data that differentiates the mean neonatal mortality rate for 1983-1987 from the mean post-neonatal mortality rate for this same period of time. The neonatal period refers to the time between birth and the first 28 days of life and the post-neonatal mortality period includes the time between the neonatal period and the end of the first year of life. In South Dakota over the past five years approximately half (53%) of all infant deaths occurred in the neonatal period while this is true nationally of 65% of all infant deaths. Figure 2 also presents data on the white and the non-white rates of death during these two periods of time.

What is most apparent from the analyses of infant deaths by when they occurred is that the mean rate of neonatal death in South Dakota is lower for both whites and non-whites than are the national mean neonatal mortality rates. This is especially true for non-whites in South Dakota. This trend, however, is reversed for the post-neonatal period. While the South Dakota mean post neonatal mortality rate is only slightly higher for whites than is the national rate, the mean non-white post neonatal mortality rate is over twice that of its national rate.

An examination of South Dakota neonatal survival by birth weights is presented in Figure 3. the analyses presented in this figure show that compared to 1979-1983 when less than half (41.8%) of all newborns with

birth weights between 500 and 999 grams survived, in the most recent five year period (1984-1988) 57.6% of these babies survived. There has also been improvement in the survival of infants with birth weights between 1000 and 1499 grams with 86.9% now surviving compared to 82.7% in the previous five year period. Less change is apparent in the 1500 to 2499 gram and the greater than 2500 gram weight cohorts

Mean Infant Mortality Rates **South Dakota & United States** **1983-1987**

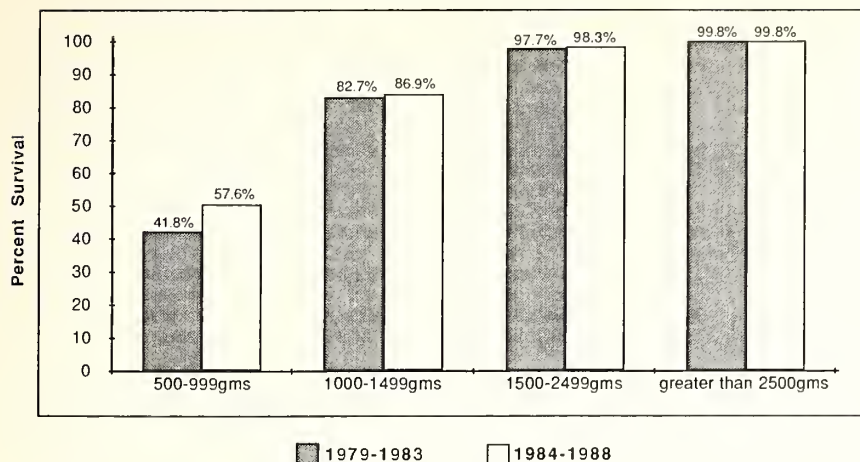


Rates per 1,000 live births.

Data from the National Center for Health Statistics

Figure 2

Neonatal Survival By Birthweight South Dakota 1979-83 & 1984-88



Data from South Dakota Department of Health

Figure 3

among whom death is uncommon.

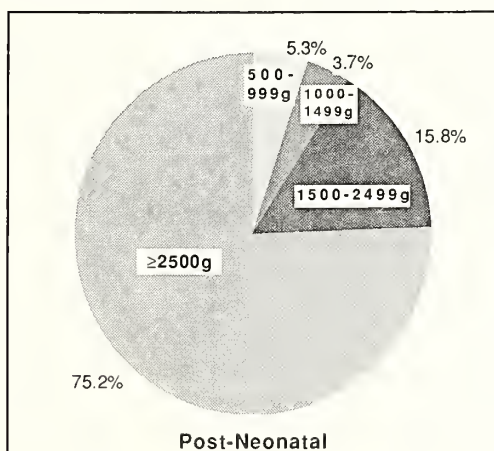
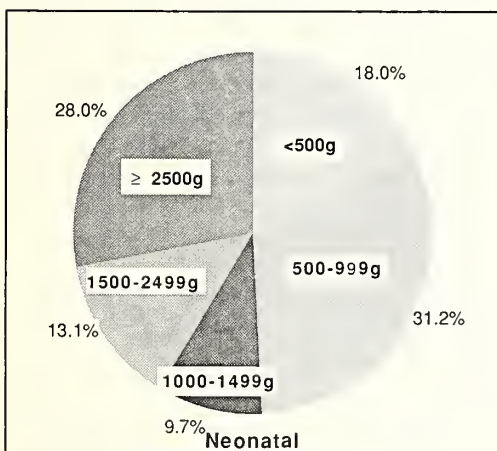
While improvement in survival of the very low birth weight infant has occurred, the percentage of births of these infants in South Dakota has not varied a great deal in the past decade. In the most recent five year period of time (1984-1988) the percentage of all newborns with birth weights between 500 and 999 grams has actually increased to 0.45% from 0.30% for the years 1979-1983. A similar slight increase is noted between these two periods of time in births with weights of 1000 to 1499 grams (.42% to .46%). Alternately, there has been a slight decline from 4.3% to 4.2% of all births with weights of 1500 to 2499 grams. In total 5.2% of all South

weights of greater than 2500 grams while this was true of only 28% of newborns who died. Clearly, low birth weight is associated with neonatal death but this is not true for the great majority of infants who die following the first 28 days of life. These findings indicate that the state's post-neonatal mortality rate may not be largely attributed to the neonatal survival of the tiny preterm newborn.

Using an approximation of a paradigm developed by researchers at the University of Alabama, postneonatal mortality data may be analyzed by cause of death.^{4,5} This paradigm distinguishes between those deaths that may be considered potentially preventable (infections

and injury), non-preventable (congenital anomalies and systemic causes not arising in the perinatal period such as cancer) and deaths that are of unknown preventability (Sudden Infant Death Syndrome, systemic conditions of the perinatal period and ill defined symptoms). Table I presents a comparison of the cause of death data from South Dakota and the United States for the five year period between 1983 and 1987 and shows essentially similar distributions of these total deaths due to the

Distribution of Infant Deaths by Birthweight South Dakota 1985 - 1988



Data from South Dakota Department of Health

Figure 4

Table I
Distribution of Causes of Post Neonatal Mortality
South Dakota and United States
1983 - 1987

	<u>South Dakota</u>	<u>United States</u>
<u>Potentially Preventable</u>		
Infections	10.6%	11.3%
Injury	7.6%	7.4%
<u>Non Preventable</u>		
Congenital Anomalies	11.3%	15.9%
Systemic - Non perinatal	10.6%	9.7%
<u>Unknown</u>		
Sudden Infant Death	39.1%	35.4%
Systemic - perinatal	8.0%	7.7%
Ill defined symptoms	3.6%	4.0%
<u>Residual</u>	9.3%	8.8%

Data from the National Center for Health Statistics.
Cause of death data were taken from the International
Classification of Diseases, ninth edition.

Table II
Post Neonatal Mortality
Relative Risks by Cause of Death
South Dakota and United States
1983 - 1987

<u>Cause of Death</u>	<u>Non-White vs White</u>		<u>SD vs US</u>	
	<u>SD</u>	<u>US</u>	<u>Non-White</u>	<u>White</u>
Potentially Preventable	4.53	2.17	2.15	1.03
Non Preventable	1.90	1.34	1.52	1.08
Unknown	3.94	1.80	2.49	1.14

Data from National Center for Health Statistics.

categories of causes. Overall 18% of post-neonatal deaths in South Dakota and the United States were potentially preventable when these criteria are used.

Table II presents relative risk data for the rates of the post-neonatal deaths by their cause. Comparisons of rates of death due to potentially preventable causes for the white and the non-white populations show that non-white infants in South Dakota experience four and a half times the risk of death as do white infants in the state. In the nation as a whole, non-whites have over twice the risk of potentially preventable deaths as do whites. Yet, a comparative analysis of risk of death from potentially preventable causes for South Dakota's non-whites and those of the entire country shows that South Dakota's rate is twice that of the nation. White infants in South Dakota essentially have the same risk of post-neonatal death due to all causes as do other white infants in the United States.

Child Abuse and Neglect

Among the preventable causes of post-neonatal death is homicide that includes child battering and other maltreatment. While all deaths of children are tragic, these deaths seem most sad and must be viewed in part to reflect society's failure to protect the young and support those who face the challenges of caring for children. National estimates indicate that between 1986 and 1988 over 1,100 children were reported yearly as fatal victims of child abuse and neglect.⁶ To put this figure in perspective, it can be viewed as almost equivalent to the number of newborns who die of congenital heart anomalies.⁷

Child abuse and neglect have certainly gained increased national attention but their ravages are not declining. Nationally, there was a 5% increase in deaths of children due to abuse between 1987 and 1988.⁶ In addition, reports of abuse and neglect are increasing with growing numbers of multi-problem families identified. Increasingly, problems associated with parental substance abuse are demanding more out of home placement of children.

Each state in the country has reporting laws that require that those who have professional contact with children make reports of suspected child abuse and neglect to designated state agencies. South Dakota Codified Law 26-10-10 requires that professionals make a report when there is "reasonable cause to suspect that any child under the age of 18 years has been starved, neglected, has had physical injury or injuries inflicted upon him by abuse or intentional neglect other than by accidental means or has been subjected to circumstances or conditions which would reasonably result in abuse or neglect by any person, including a parent or other person responsible for his care." Failure to comply with this requirement is a Class 1 misdemeanor.

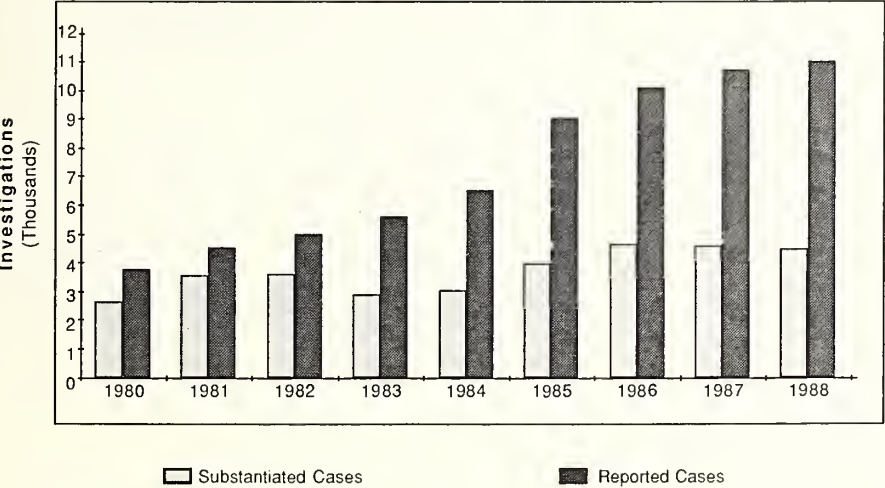
As shown in Figure 5, since 1980 there has been a 66% increase in the number of reports of child abuse and neglect in South Dakota and in FY 1988 there were 11,007 reports of suspected abuse of which 4,483 (41%) were substantiated. The substantiation rate has decreased since 1980 (from 69%), yet nonetheless, the number of substantiated cases of child abuse and neglect has increased by 42%.

The American Humane Association (AHA) has maintained a national data bank on child abuse and neglect. Their data indicate that in 1987 reports of suspected child abuse and neglect were filed on approximately 5.5% of all children in South Dakota compared to 3.4% of all children in the United States.⁸ The data available from the AHA indicate that approximately 39-41% of these reports were substantiated.

Data on child abuse paint a painful picture for all who examine them. What must be recognized is the depth

of the dynamics that these data reflect. When a report is filed for a child, other children living in the same home also suffer from the disturbed family relationships that foster such maltreatment. In addition, maltreatment affects a child's development of a capacity for nurturant caregiving, the essential foundation for future parenthood. An understanding of these characteristics of child maltreatment demands that all who have contact with children observe for early signs of disturbed parent child relationships and take measures that may help support parents and protect children from the devastation of maltreatment.

Child Abuse and Neglect
South Dakota - 1980 to 1988



Data from South Dakota Department of Social Services

Figure 5

Comments

The great majority of neonatal deaths in South Dakota are of low birth weight infants, the incidence of which has not shown an appreciable decline over the past decade. While the likelihood of survival of tiny newborns continues to improve, efforts must be focused upon the prevention of their early birth. In response to these observations, the South Dakota Department of Health has initiated a preterm birth prevention project that will implement an educational program for physicians and office nurses from communities in the state. This program will be modeled after that developed by Creasy and his co-workers and has been found to be effective in decreasing the incidence of preterm delivery in several communities including our neighboring community of Worthington, Minnesota.⁹ This effort is to be applauded and we will eagerly await its development and hopefully its positive results.

Neonatal and post-neonatal mortality each reflect social problems that become manifest in unfortunate outcomes of pregnancy. However, post-neonatal deaths are more specific in their reflection of socioeconomic circumstances.¹⁰ Clearly, in South Dakota, the likelihood of dying from a potentially

preventable cause of death is much greater if a baby is not white. The problems associated with these deaths reflect a broad range of factors that are unlikely to be successfully addressed without a comprehensive approach to families that attends to their life patterns that limit ability to seek and respond to medical care. Enabling the availability of such comprehensive care requires both a societal commitment to its provision and an investment of enormous personal energy among those who are direct health care providers.

To address the specific problems of child abuse and neglect equally demands such an investment of professional attention. To some degree, any preventable death of a child may in the broadest sense be linked with abusive or neglectful dynamics that have failed to provide protection. The intergenerational patterns of such neglect are often discussed, but what must be equally recognized is that not all abused and neglected children go on to perpetuate a tragic cycle of maltreatment.

While estimates show that approximately 30 +/- 5% of all parents who were abused during their childhood maltreat their own children, this figure must be interpreted as also indicating that approximately 70% of these parents do not inflict injury upon their children.¹¹ Kaufman

and Zigler in their review of this issue note that research has shown that parents who have not repeated the pattern of their personal abusive rearing were more likely than "repeaters" to have one parent or foster parent who provided support and love while growing up. Further, these "non-repeaters" were more likely to be involved in an emotionally supportive relationship and to be experiencing fewer life stresses. These observations emphasize the importance of non-familial support to a young child whose life sadly is burdened by care that does not provide a sense of security. How health care providers can assess and help assure the presence of emotionally supportive relationships for children and provide special support for parents whose own childhood experiences may not have been sufficiently nurturant is a challenge. Yet, this is also a challenge that if met effectively may have a very positive effect upon the lives of children and their families.

As a project of the Centennial Year, the Department of Pediatrics, University of South Dakota School of Medicine and the South Dakota Department of Social Services have developed a Handbook on Child Abuse and Neglect for physicians and hospitals in South

Dakota. This handbook will be distributed in 1990 and hopefully will enable an enhancement of efforts to prevent and respond to child abuse and neglect.

REFERENCES

1. Wilson AL: The state of South Dakota's child: 1988. *SD J of Med* 1989;42(1):15-20.
2. Vital Statistics of the United States: 1980, Vol I - Natality, US Dept of Hlth and Human Serv, Public Health Service, Hyattsville, MD.
3. Vital Statistics of the United States: 1987, Vol I - Natality, US Dept of Hlth and Human Serv, Public Health Service, Hyattsville, MD.
4. Druschel CM, Hale CB: Postneonatal mortality among normal birth weight infants in Alabama, 1980 to 1983. *Pediatrics* 1987;80(6):869-872.
5. Hale CB, Druschel CM: Infant mortality among moderately low birth weight infants in Alabama, 1980 to 1983. *Pediatrics* 1989;84(2):285-289.
6. Data from National Center of Child Abuse Prevention Research, National Committee for Prevention of Child Abuse, 332 S. Michigan Ave, Suite 950, Chicago, IL 60604.
7. Vital Statistics of the United States: 1987, Vol II - Mortality, US Dept of Hlth and Human Serv, Public Health Service, Hyattsville, MD.
8. Data from American Humane Association, 9725 E. Hampden Ave, Denver, CO.
9. Yawn BP, Yawn RA: Preterm birth prevention in a rural practice. *JAMA* 1989;262(2):230-233.
10. Miller CA: Infant mortality in the US. *Scient Am* 1985;253(1):31-37.
11. Kaufman J, Zigler E: Do abused children become abusive parents? *Am J Orthopsychiat* 1987;57(2):186-192.

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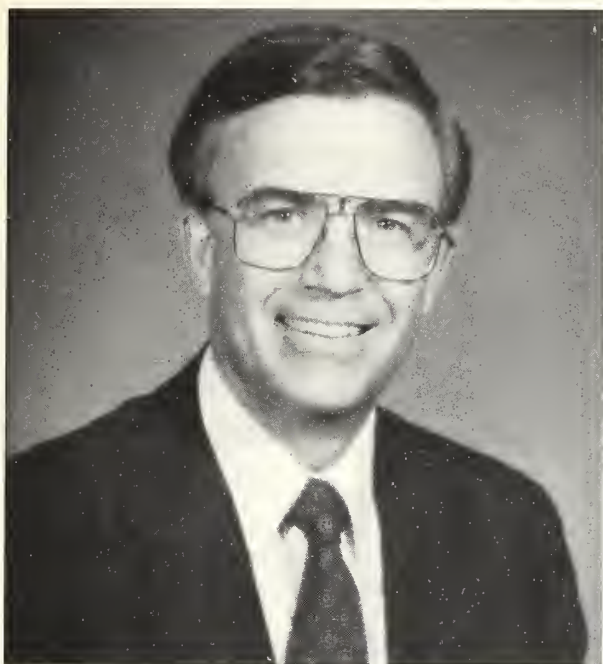
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Grass Roots

This past November, prior to the start of the annual North Central Medical Conference meeting in Minneapolis, a number of us were given the opportunity to attend an AMA Key Contact Training Seminar. With the legislature beginning its annual activities in Pierre and with the old idea that your life, liberty and pursuit of happiness is not safe while this body is in session, I felt it prudent to highlight some of the points that were made during this seminar as it reflects on the importance of Grass Roots Legislative Political Programs.

Before delving into this subject, however, I would like to endorse and highly recommend the North Central Medical Conference meeting in Minneapolis and suggest that you give attendance to this meeting strong consideration in the future. The meeting is always held in November at one of the downtown Minneapolis hotels. It is one of the finest medical meetings dealing with medical socioeconomics and politics that one can attend. It also gives one a chance to rub shoulders and meet colleagues from the other North Central Medical Conference states.

Now getting back to the subject at hand, major shifts in political circumstances have occurred in the decade of the 1980's necessitating changes in established legislative political apparatus which prior to the 1980's was

successful. Political changes which occurred in this decade causing these major shifts include the following: 1) The severe problems faced by medicine in Washington, DC and on the state and local level caused by budget constraints. 2) The alienation of traditional allies such as business away from organized medicine because of increased health costs. 3) The literal explosion in the number of political action committees combined with increased cost of congressional campaigns and federal limitations on tax spending. 4) The intensification of single issue political groups which devote all their efforts and resources to one issue as opposed to the AMA, which must address itself to many topics within the broad area of health and medical care. 5) The change in the operation of congress, itself, wherein the seniority system and party discipline are much less effective and important because of the proliferation of subcommittees giving nearly every congressman a public platform for his own political opinions, opening up new bases of political support and increasing the reliance on constituents from their districts.

Individual congressmen have become more sophisticated and more independent. They no longer automatically look to their party or committee leadership for direction on political issues. This necessitates a more individual approach toward each congressman, so that he can be thoroughly briefed on medicine's issues and viewpoints. Lobbyists are still important but must be supported with physician and spouse constituent activity.

The impact of letters and personal contacts to a lawmaker on a specific issue should never be underestimated. The volume of personal, phone and written contacts as well as face to face contacts from constituents can make a real difference.

PAC support is still important but it must be supplemented with people. People are needed to generate votes, to serve as campaign volunteers, leaders, managers, to raise additional contributions and to serve as opinion leaders for the candidate.

This is what grass root lobbying is all about. The ideal grass roots activist is a person who combines legislative acumen with political involvement. Who is in a better position to relate medicine's issues to elected officials than the physician who is on the front line seeing patients daily and who understands the true impact of proposed legislation and regulation? What better physician than one who is politically involved!

It was stated by the facilitator of the Key Contact Seminar that politics in the United States is a win or lose game. Somebody always wins and somebody always loses. There is no in-between. He put it very simply,

you are either a player in the political system or you are a loser. Those who say they are politically uninvolved, that they are not interested in politics, that they have no opinion are automatically losers in our political system. We all pay taxes and we all finance this government of ours and it would seem to behoove us to be players if we are to have any impact on how this investment of ours is disposed of.

Grass Roots advocacy really supplements the efforts of medicine's local and national lobbying effort because it reinforces in the mind of the office holder that the views expressed by medicine's lobbyists represent the views of his constituents and provides a double avenue to influence public policy decisions. Finally, it personalizes and localizes the political impact of legislative and regulatory proposals. Grass Root's advocacy is nothing more than organizing and developing resources within the state to augment ongoing state and national lobbying efforts.

So, during this upcoming legislative session, keep your head up, your eyes open, your ear to the ground, read the grab bag and if anything medical or otherwise peaks your political interest contact your legislators. Let them know how you feel. Get to know your legislator as a person, not just a name and get yourself involved in the political process in its full extent. If you are contacted by Medical Association staff to solicit your help during this legislative session, please give it your best efforts. Let's be players and not victims. #



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Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

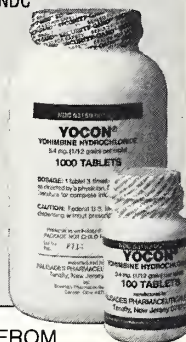
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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To D.N.R. Is Against The Law?

Richard P. Holm, MD
Brookings, SD

Memorandum opinion No. 88-10 dated March 11, 1988, from the office of the South Dakota Attorney General Roger Tellinghuisen is an eye opener. He is responding to this question from the Human Services Center: "What potential legal issues would be raised should the hospital and its doctors agree to honor a patient's wishes that he not be kept alive by medications, artificial means or other heroic measures?"

The Attorney General's memorandum is a very scholarly response reviewing the history behind the issue, the constitutional right to privacy as well as informed consent and battery issues. He even touched on substituted judgement principles as well. He obviously knows the facts, the reason and the principles behind the question.

However, he came back with another question. "Is the right to discontinue direct medical treatment outweighed by state interests?" He says the above-mentioned "rights" are not absolute and should be balanced against the right of a state to protect its citizens. Those interests include: (1) preservation of life; (2) prevention of suicide; (3) protection of innocent third parties; and (4) the preservation of the ethical integrity of the medical profession.

He then makes the point that "the question has not yet been addressed by our courts or by our legislature in this state".

Therefore, he states, in the absence of legislative guidance, physicians need to seek "court approval" before life support is withdrawn on incompetent patients. He says further that "physicians must be cognizant of the fact that they may face civil and criminal liability in electing to comply with the patient's wishes!".

Finally, he again emphasizes his point that "the hospital should refrain from implementing this proposed policy until these issues can be resolved by either the courts of this state, or by the state legislature". "Furthermore," he finishes, "I believe that the legislative process would be a superior method of insuring public input into such vital issues."

He couldn't be more clear on this. Unless the legislature addresses this question, we are left to resuscitate everybody, even against their wishes, unless in our medical opinion the resuscitative effort is futile.

One more point... In this state there is no specific statutory authority to honor a durable power of attor-

ney or even a consent from a relative when a patient has become incapacitated to make decisions on his own.

We desperately need legislation; 1) to legitimize the "durable power of attorney" concept for "medical care" in this state; 2) to authorize a family member to make a medical decision when a patient is or has become incompetent; and 3) to

legitimize the concept of honoring a patient's wish that he not be kept alive by medication, artificial means or other heroic measures when in the physician's opinion this does not represent a suicidal wish and is in the overall best interest of that patient.

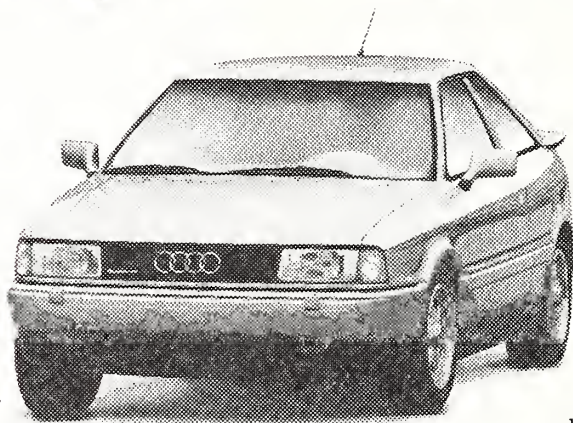
Additional Note:

The above editorial was sent to Roger Tellinghuisen for his feedback. His Deputy Attorney General, Thomas Harmon, returned with the following attorney-like suggestions:

1. I should make clear to the reading audience that "memorandum opinions of the attorney general are intended as an internal advice between the attorney general and agencies of state government and in this case, was a response to questions from the Human Services Center. Memorandum opinions have no statutory authority and should not be considered binding upon anyone."
2. I should "make it quite clear that this article is a summary, a synopsis, or a distillation of the opinion and represents my view of what Roger Tellinghuisen's document says".

I would hasten to add, that Mr. Harmon wrote that he thought my editorial analysis of the attorney general's memorandum "is fair, balanced, and accurate".
#

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Council Meeting Highlights

The Council of the South Dakota State Medical Association met on Friday, November 17, 1989, at the Ramkota Inn, Pierre, South Dakota. Following are items of business which transpired during that meeting:

1. "MANDATED" HEALTH CARE BENEFITS.

The Council adopted policy to oppose all mandated health care benefits and legislation to institute such benefits.

2. MEDICARE PROPOSED "PATTERNS OF CARE".

Representatives from North Dakota Blue Cross/Blue Shield, which is the Medicare carrier for South Dakota, and HCFA personnel met with the Council to discuss the pilot project of North Dakota Blue Cross/Blue Shield on Patterns of Care. Councilors emphatically stated that the Patterns of Care which they had reviewed were incorrect and often times outdated, and they requested the names of physicians utilized to develop the various patterns. North Dakota has stated that the names cannot be released without the individual physician's authorization. There was also discussion on the implied implementation of this project even though North Dakota previously stated this would not be implemented without physician cooperation and was a pilot project only. It was learned that the project analysis should be completed and submitted to HCFA before year-end, and that HCFA is expected to make a decision regarding implementation in early 1990. The Association requested a copy of the analysis report and was told this would be available after HCFA reviews the report. As of this date the SDSMA position is to op-

pose the Patterns of Care project, and both North Dakota Blue Cross/Blue Shield and HCFA have been informed of this position. The latest information received is that HCFA is not proceeding with the Patterns of Care program as proposed, but that North Dakota Blue Cross/Blue Shield has been directed to work with the Medical Association and the physicians in South Dakota to develop a program which would be acceptable.

3. PHYSICIAN BILLING PRACTICES. Dr. Saylor, Chairman of the Grievance Commission, addressed the Council on problems encountered with the physician/patient relationships frequently caused by billing practices. He noted that a number of physician offices are "unbundling" procedures and submitting charges for each procedure listed rather than utilizing the usual practice of charging one amount for a procedure which may include several different services.

4. CHARGES FOR PHOTOCOPYING MEDICAL RECORDS. The Medical Legal Committee recommended that for medical records provided to attorneys, physician offices charge \$.20 per page with a \$10 minimum. The Council did not accept this recommendation and accepted it for information only.

5. HONORARY LIFE MEMBERSHIP. Dr. Edward Daw of Sioux Falls was elected to honorary life membership in the State Medical Association.

The next Council meeting will be on Friday, March 30, 1990, at the Holiday Inn Downtown, Sioux Falls. #

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Battered Wife Syndrome: Overview and Presentation in the Office Setting

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ABSTRACT

Spouse abuse is an under diagnosed entity in primary care. It is common in all social classes of both men and women. It is a cyclic phenomenon that tends to increase in severity and frequency. This article reviews the psychological factors of the man and the woman; the signs and symptoms of abuse; the reasons abused women stay or leave, and treatment modalities. Also discussed are the results of two studies performed by the authors. The first study was an anonymous survey of 218 women to determine the rate of spouse abuse to female patients in two family practice clinics. In the second study 14 clinic patients who volunteered for an interview were asked what they expected from their family doctor in regards to spouse abuse.

INTRODUCTION

All of us have had disputes with our "significant other" at one time or another, and usually the issue is settled without serious after effects. Not uncommonly, however, words and actions escalate to the point where one person becomes emotionally or physically hurt. That is abuse. As words and actions escalate in severity, family members show signs of stress; at that point their family doctor should be able to make the diagnosis. As actions become more violent, surgeons, orthopedists or psychiatrists may be consulted. If the actions are yet more violent, a final consult may be made to the mortician. Ten to fifteen percent of all female homicides are by their spouse.¹ Ideally, spouse abuse should be identified early so that interventions can prevent this and other serious after effects.

Rates of Spouse Abuse

Many different rates of spouse abuse have been noted in the literature; the variation of rates is due to different definitions and methodologies. The two large national surveys on spouse abuse by Straus and Gelles^{2,3} found 3.8% in 1976 and 3.0% in 1986. Helton⁴ found a rate of 23% in the 290 obstetrical patients she interviewed. The authors survey of female patients visiting two Sioux Falls, South Dakota clinics, reported 47%

verbal abuse within the last year, 44% reported minor physical abuse, and 28% noted severe physical abuse.⁵ (This patient population does not represent Sioux Falls or the national population because of its high percent of lower socioeconomic respondents).

Couple Profile

Abusive couples can be any couple, although it is more common in the lower socioeconomic groups.^{4,6} Couples are often socially isolated and have minimal contact with their extended family.⁶ They are also often rigid and resist change. If there is spouse abuse in a relationship, there is often child abuse.^{7,8}

Female Profile

The battered woman can be any woman; rich, poor, young, old, black or white.^{4,9} Abuse causes them to have a low sense of self esteem. Many women see their husband as the bread-winner and themselves as the homemaker.¹⁰ Thus, if their home is not happy, it is her fault. Consequently she accepts blame for his anger and abuse.¹¹ As one of my patients said "He only hits me when I'm bitchy." Abused women are often very devoted to their family and husband. Many abused women were abused as children.¹² Abused women are often more educated than their partner. Divergent levels of education raise the issue of power and control. He may perceive her higher education and income as a threat. After prolonged abuse, it is common to find abnormal coping mechanisms such as chemical dependence, depression and suicide in victims of abuse.⁷

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Male Profile

The abusive male can be any male, although he is more commonly in the lower socioeconomic groups.^{4,6,13} Many were abused as children. They have learned that violence is an acceptable means of solving problems.^{2,11} Since violence is a learned behavior, most will be abusive to all of their partners.¹³ The best predictor of future violence is past behavior.¹⁴ His abusiveness is not because of her behavior but rather his inability to control his anger.^{6,15} These men do not see the problem as theirs and they blame others.¹¹

There are many psychological factors that cause his abusive behavior. Abusive men do not believe that they have control of their lives; they have low self esteem and use violence to gain a sense of power and control.⁶ When they fear a loss, ie, a partner leaving, they respond with anger instead of sorrow.¹⁶ For example "if you leave me I'll kill you". Abusive men are similar to other generally assaultive men (non-spouse abusing) in their overall sense of suspicion, anger and hostility. However, abusive men differ in that they are more often depressed.¹⁶ Abusive men are also often impulsive and tend to be drug and alcohol dependent. Their partners describe them as patriarchal, jealous and unfaithful. The rate of antisocial personality disorder is also higher in abusive men than in non-abusive controls.¹³

Cyclic Phenomenon

Spouse abuse encompasses a wide variety of behaviors and it may be verbal, emotional, physical, or sexual. The pattern of abuse is cyclic and escalates in both frequency and severity.⁹ The first phase is the tension phase in which there are ongoing unresolved problems and stressors. During this time the abuser feels powerless. With time, tension builds until something triggers him into an abusive episode (the second phase). The catalyst can be anything, i.e. an argument, problems with money, the job, the kids, sex, jealousy, drinking, etc. One patient recalled "the car didn't start the first time I tried and he flew off the handle". The third phase is repentance and reconciliation. The abuser states his love and promises that it will not happen again; he may send flowers, etc. Often he feels remorse and gives control to her. This phase is only temporary and since the initial problems were not solved by the violence, with time, tension builds and the cycle repeats itself. Some women state that actual physical violence will decrease with time, but the rate of emotional abuse becomes more common (personal contact with Mrs. Byrnn-Olson of the Children's Inn, a shelter in Sioux Falls). During the abusive phase he may not beat her but rather raise his fist, give her "the evil eye" etc, thereby using the threat of violence to subdue her. This is still abuse.

Chief Complaint

Victims of abuse present in one of three ways.⁷ The first is with physical injuries; with or without the actual

history of how they occurred. The second is with somatic problems that have few physical findings. The third presentation is with psychological problems secondary to the abuse. The practice site, office verses emergency room, will determine which of these you will see most often.

In their work at the Yale-New Haven emergency room, Christiano et al⁷ describe three stages abused women go through (Table I). Christiano et al also determined high yield criteria to aid in diagnosing abuse (Tables II-XI). These symptoms are varied and vague so it is important to keep a high index of suspicion for spouse abuse.

Table I
STAGES OF SPOUSE ABUSE

Stage 1:	The woman presents with injuries in the central, anterior regions of the body (face, torso, head).
Stage 2:	She visits outpatient clinics, often with vague complaints.
Stage 3:	She develops psychosocial sequelae (alcohol, drug addiction, suicide attempts).

Table II
HIGH YIELD CRITERIA FOR IDENTIFYING BATTERED WOMEN PSYCHIATRY

Anxiety state
Inability to cope
Depression
Suicide attempt, particularly if pregnant
Alcoholism, drug abuse
Psychosis
Paranoia, catatonia, homicidal ideation/rage

Table III
PEDIATRICS

Coexistence of child abuse
Women with children having psychosomatic complaints: headaches, abdominal complaints, peptic ulcer, rheumatoid arthritis, enuresis, asthma, behavioral problems, stuttering, depression, suicidal behavior.

Why Does She Stay (Why Do We Let Abusers Continue to Abuse)

It is difficult for those who have never been abused to understand why an abused woman does not leave. When the situation is viewed from her perspective, there are many reasons why she stays.^{11,17} Many women are fearful and often receive threats of bodily harm if they should leave. A jealous husband of one of my patients drove through every street in Sioux City, Iowa, until he found her car, which he stole. Then he returned for her. Some men will not give their spouse enough money or free time to leave. Many women

Table IV
EMERGENCY ROOM

Delay between the time of injury and presentation for treatment.

Patient's companion reluctant to leave patient during exam.

Central trauma to head, face, shoulders, breasts, abdomen. Trauma often results in injuries to the pelvis and extremities with sprains and strains, less often abrasions and contusions.

Bilateral injuries. Often her response to the pain is not appropriate.

History of injury incompatible with presenting complaint.

Familiar excuses to explain injuries, i.e. "I walked into a door." "I was hit by a softball."

History of previous trauma.

Coexistence of trauma with pregnancy, drug abuse, alcoholism, depression, suicide attempts.

Chemically dependent partner.

Triad of trauma, depression, and problems with her children.

Coexistence of trauma with complaints of insomnia, nightmares, anxiety, inability to cope.

Hostile reaction to male personnel.

Table V
OB/GYN

Pregnancy increases the likelihood of battering.

Increased incidence of abortion, miscarriages, and premature delivery.

Pregnancy with injuries or bruises.

Sexual dysfunction.

Divorce or separation during pregnancy.

Persistent GYN complaints--especially abdominal pain and or dyspareunia.

Suicide attempt during pregnancy.

believe that they are to blame for the abuse and thus, they deserve it. Some women will not leave because the children need them. She may not know where to turn or she may be too ashamed to ask for help. Lastly, he often promises to never do it again.

Strube⁸ has discussed three lines of reason as to why abused women stay. The first is psychological entrapment; or in layman terms, making good on a previous investment. The woman may have several years of her life and love invested and she believes that if she tries just a little harder, things will improve. Unfortunately this is a vicious circle and the harder these women try, the more they have to lose. Women who value being an ideal wife and mother can easily be influenced by this

Table VI
MEDICINE/SURGERY

Frequent trips to many different clinics with vague symptoms: headaches, choking, hyperventilation, asthma, GI upsets, allergic phenomena, chest pain, abdominal pain, pelvic pain, back pain, fatigue, sleep disturbance.

Clinical findings elusive, non-specific.

Symptoms unremitting, chronic somatic complaints.

Often labeled as a "crock, hypochondriac, hysterical," etc.

Requests sleep medication, tranquilizers.

Increasing use/abuse of analgesics, tranquilizers, drugs, alcohol.

History of repeated emergency room visits for trauma.

Does not adhere to treatment plan.

reasoning. A second line of reason is "cost/benefit". The benefit of not being abused may be outweighed by the costs of leaving i.e. financial; she may be unemployed, not have a place to live, and/or emotional; being put down by the stigma of being abused or divorced. One mother of three, with handicapped twins, said "single life would be worse". The third theory of reason is "learned helplessness". Nothing she has tried has worked to improve the relationship, thus nothing will work; so why even try. Her self esteem is very low and she is often depressed.

Freud believed that abused women stay because they are masochistic, that idea is a Freudian slip-up, and has been refuted.¹⁹

Factors Associated With Leaving

A woman will leave an abusive relationship only when she has decided that it is in her best interest. If she is pushed into a decision she may change her mind. Several factors are associated with her decision.²⁰ First, she realizes that the abuse is not an isolated event, but rather a pattern of behavior that will not change. Second, abuse may become too severe to tolerate and she fears for her life, or her sanity.²¹ Some women will leave when their partner abuses the children. When one of my patients saw her husband pour vodka down the throat of her three year old she decided to leave. "I could take it, but I wasn't going to let it happen to my children." When women are at the point where they seek,²¹ i.e. shelter, medical and social agency assistance, they are more likely to leave. If they are willing to call for police protection they are also likely to leave.

Treatment

Spouse abuse is multifaceted with both immediate and long term problems. Short term treatment goals include her safety, treating physical injuries, and housing needs. Long term goals include treating the abuser, im-

Table VII
TREATMENT TIPS

1. Treatment must be safe for her.
2. Do not be judgmental or accusatory.
3. Be supportive, listen and believe her.
4. Have practical advice i.e. local shelters, counseling agencies, where to seek legal aid. The National Coalition Against Domestic Violence (POB 15127, Washington, DC 20003-0127) has a hot line 1-800-333-SAFE.
5. Try to improve her self esteem. Encourage jobs, support groups, get her involved in something she is good at.
6. If possible, take pictures of her injuries. These may be helpful for future litigation, if she chooses. Pictures should be kept in a sealed envelope in her chart.
7. Arrange counseling for him; this is often difficult, and may require a court order.
8. If abuse is new in a previously non-abusive relationship, rule out organic pathology in the abuser i.e. brain metastasis, subdural hematoma, or drug reaction.
9. Rule out psychopathology in both partners. A borderline or antisocial personality makes treatment very difficult.
10. She may not trust males. Female office personnel should be available and willing to help or give advice.

proving self esteem, and healing the emotional hurts. Table VII⁴ summarizes treatment.

The first and foremost concern is her immediate safety. Is it safe for her to go home? Does she need to be in a shelter, or the hospital? One office visit will not cure spouse abuse. There needs to be prolonged follow-up. Unfortunately it is very easy to inadvertently alienate her by being judgmental or asking accusatory questions. Statements like "I can't believe that Henry wants to kill you, Anne Bolin" or "Why don't you just leave him" will place disbelief, blame and shame on her. Accusatory questions tend to lower her self esteem and she may become reluctant to discuss it with you, or anyone else. It is difficult to admit to being abused so it is very important that she feels acceptance. It is also important that physicians have practical information such as location of shelters, how to get protection orders, etc.²⁰ Some women may also need advice on how to get away in an emergency (Table VIII⁴).

Whenever there are bruises, try to take pictures (include a hand or face for identification). Pictures are helpful if future litigation is taken. Obtain an informed consent for the pictures and keep them in a sealed envelope in her chart.²²

Self esteem is low in victims of abuse and because of this they are often dysfunctional at home and at work.

Table VIII
EXIT PLAN FOR BATTERED WOMEN

If you find that you or your children are in danger from your male partner, it is best to leave the situation. If you decide to leave in anticipation of a battering incident, or during or after one, advance planning can help.

1. Pack changes of clothes for you and your children. Pack extra toilet articles, medicines, and an extra set of keys to the house and car. Ask a friend or neighbor to store these.
2. If possible, keep extra cash, your check book, and savings account book with a friend. You may need identification such as birth certificates, social security cards, voter registration, utility bills, or driver's license to enroll your children in school or to arrange financial assistance.
3. Take something special for each child, such as a toy.
4. Know exactly where you could go, even in the middle of the night, and how to get there.

If you have been battered and are injured:

1. Go to the emergency room. If you are badly hurt, call an ambulance, the police, or a friend or relative.
2. Describe current and past battering incidents to the health care provider, especially if you are pregnant.
3. Get a copy of your medical record for any treatment you receive for injuries. It can help if the district attorney files charges for the assault.
4. If your physician prescribes medicine, ask for the name and why the physician wants you to take it. Be wary of tranquilizers; they may help you rest, but they will not solve your problem.

There are many things that physicians can do or suggest to improve her self esteem. Listen and reiterate that abuse is not her fault. Encourage counseling and support groups where she can discover that she is not alone. Some women find employment very helpful. They make friends; they get out of the house; money can provide her a means of self sufficiency, and job success can improve their self esteem. However, her partner may try and thwart these efforts since she is gaining power and control from the job.

Abuse is the abuser's fault and they need help. Treatment includes teaching them to control their anger, and see that they do have control in their lives without being abusive.¹⁰ Unfortunately, men rarely go into treatment on their own, usually it is on a court order. If they also have an alcohol or drug problem, it needs treatment as well. With treatment physical abuse tends to decrease but verbal and emotional abuse may become more frequent.

Any form of joint counseling which does not place the blame on the abuser, is not really helpful.²³ Only rarely is abuse intrinsic to a pathologic relationship.¹⁹

In this case, both partners could have non-abusive relationships with other people.

If abuse is a new phenomenon in a long standing, healthy relationship, look for organic causes in the man, ie, subdural hematoma, a drug reaction, or a neurological disease such as Huntingtons chorea.²⁰ We have all seen men with primary lung cancer that presented with a personality change from metastasis to the brain.

Lastly, some victims of abuse will not trust men so it is important to have female office personnel who can help.²⁰

Two Studies

The authors performed two studies on spouse abuse using the patient population from the two family practice clinics that are served by the family practice residents in Sioux Falls; namely the Family Practice Center (FPC) and the Sioux River Valley Community Health Center (CHC). The patients of FPC and CHC are not a true cross-section of Sioux Falls. At CHC, 46% are below the poverty level and 83% do not carry insurance; while at FPC 40% do not carry insurance. Only 60% of the FPC and 40% of the CHC patients identified one physician as their family doctor.⁵

The authors' first study found 48% of the 218 women surveyed reported verbal abuse within the last year.⁵

Table IX INTERVIEW RESULTS				
Woman	Age	Abuser	Type of Abuse	Comments
A	19	Boyfriend	V,P	C,F,1,J
		Ex-boyfriend	V,P	
		Stepfather	S	
		Mother	N	
B	39	Husband	V,P	F,1,J
C	46	Husband	V,E	F,1
D	34	Husband	V,E	C,F,1,J
E	21	Husband	V	C,F,1,I
F	50	Husband	V,E	J
G	24	Ex-husband	P	C,F,1
		Father	V,P	
H	23	Ex-boyfriend	P,E	C,F
I	31	Ex-husband	V,P	C
J	36	Father	N	F,1,J
		Father	N	
K	21	Observed abuse	N	C
		Father	V	
L	22	Observed abuse	E	C
		Observed abuse	E	
M	24	Observed abuse	N	
N	20	Observed abuse	E	

V=Verbal abuse, P=Physical abuse, S=Sexual abuse, E=Emotional abuse, N=Not specific, C=Chemical dependency on abusers part, F=Physicians have failed to diagnose spouse abuse in the past, J=Job helps her cope, I=Partner currently incarcerated, 1=This interview was the first time her spouse abuse was discussed with a doctor.

Table X INTERVIEW COMMENTS	
A.	"You get to believing him when he says you're bad."
B.	"I'm too strong to be walked on."
	"I usually do the slugging."
C.	"You make your bed...you sleep in it."
	"Don't give tranquilizers."
D.	"My support group at work helps."
E.	"I've left him twice."
F.	"If you know her well, dig for stressors."
	"Victims need to take some responsibility." (for seeking help)
G.	"You're not worthless; you can do better."
	"He (father) died when I was 17...Thank God!"
H.	"Ask about home life at each visit."
I.	"I didn't admit to myself that I was abused."
	"A female nurse may be helpful, she might not trust men."
J.	"Learn to respect yourself then you can change."
	"Find something that you are good at, it will improve your self esteem."
K.	"Women feel too guilty to bring it up."
	"Women stay because they believe that they cannot find another man."
L.	"Many women do not believe that they can do better."
	"Spend the extra five minutes to get to know your patients."
M.	"Inquire as she tolerates." (about abuse)
N.	"Give her a phone number so she can call you back."

Thirty percent of the respondents reported that verbal abuse was at least a monthly occurrence. Forty-four percent of the women noted minor physical abuse, 28% reported severe physical abuse and 14% marital rape. Of those who were abused in any way, 16% reported abuse occurred prior to marriage (or cohabitation), 52% reported drugs and/or alcohol involvement on their partners part at the time of abuse; 58% have confided their abuse with another person, and 68% have fought back. Non-live-in boyfriends tended to be less abusive than husbands or boyfriends who did. Women with relationships of 4-6 years reported higher rates of abuse. While women with higher education tended to receive less physical abuse, women with more formal education than their partners were at increased risk of physical abuse. Less educated men are more abusive than men with more formal education. Women in lower income families were more often abused. Men with chemical dependence were more often verbally, physically and sexually abusive. Twenty six percent of the women reported their partner to have an alcohol problem and 11% to have a drug abuse problem.

Though the rate of spouse abuse was higher in this

study than in other larger studies, the underlying psychopathology that we identified was similar to other studies. There are many reasons for our high rates. This was an anonymous survey, thus there was no shame or fear of retaliation on the respondents part. The study population was weighted toward women at high risk for abuse, i.e. high rates of partner chemical abuse, low family income and low educational levels in the men. And the word "abuse" was not used on the survey because it could bias their answers.

The second study involved face to face interviews with 14 volunteers (Table IX). These 14 women volunteered after an anonymous questionnaire was distributed at CHC and FPC. Five other women volunteered and scheduled interviews but did not show. Approximately 150 questionnaires were distributed to get these 14 volunteers. Six of the women were currently in abusive relationships (A,B,C,D,E,F); 3 women had been previously abused by their partner (G,H,I); 3 had been abused as children only (J,K,L), and 2 had not been abused but knew abused women (M,N). Table X lists comments from each of the fourteen volunteers.

It is apparent from comments (Table X) that these women are at different stages in coping with spouse abuse. However, there were many shared feelings, opinions and suggestions that surfaced during the interviews. Most obvious of the opinions was that physicians are responsible for making the diagnosis of abuse. Women will not mention abuse as their chief complaint even though it is the cause of their problem. There are many reasons why women do not say "I'm abused". It is shameful to admit that one is a victim of abuse and many women believe that it implies that something is wrong with them. Women also fear retaliation if abuse is uncovered. One woman stated "Doctors don't have the time". Another woman said "You doctors are way up there (she held her hand high) and we are way down here (then she lowered her hand below her knees)". Even though these women would not initiate the diagnosis they believed that doctors should broach the subject. In the case of bruises or accidents, physicians should be vigorous in ruling out spouse abuse. When the symptoms are more vague, physicians need to begin with general questions addressing stressors and then proceed with more specific questions. Many of the women believe that physicians should look for stressors at each routine visit.

Besides expecting the physician to bring up the subject, these women expected help from their physician. Eleven of the women wanted their doctor to take the extra time to listen; 9 wanted advice; 8 wanted some counseling for one or both partners and eleven wanted their doctor to make appropriate referrals. Interestingly, only 2 thought that women should be given tranquilizers; and 6 women were very much opposed to sedatives and tranquilizers. Four women had been given tranquilizers.

Another common theme in these women was low self esteem. Low self worth will lead to a dysfunctional person in whom change is difficult. Low self esteem was manifested by a desire for isolation, anhedonia, and apathy. Often they would let the house go untended. They believe that they are bad; that they deserve their plight and that they can not improve their situation. Those who overcame abusive relationships believed that improving self esteem is essential in changing the situation. Many of these women agreed that if one experiences positive reinforcement in other areas of their life that their overall self esteem would improve. Five women stated that their job helped in this respect. Several of the women thought that just being out of the house helped and some had support groups at work.

In this small sample, 10 of the 12 who were or had been abused, thought drug and/or alcohol use by the abuser exacerbated abuse. Financial distress and unemployment were also perceived to exacerbate abuse. The abusive men tended to be jealous, untruthful and unfaithful. The men did not see themselves at fault and always blamed others. Many of the women stated that abuse became worse if they fought back. Many of the women had left their partner, felt good about leaving, but had returned.

Spouse abuse is a difficult diagnosis to make and the fourteen volunteers exemplify this difficulty. Eight of the nine women with abusive partners stated that physicians in the past had failed to make the diagnosis. For seven of these women, this interview was the first time that they had discussed abuse with a physician. One woman (G) stated that she had been hospitalized for several days and had months of cranial nerve palsies after she sustained a head injury. Her injury occurred when she "fell down the basement stairs". Actually, she was thrown down the stairs. This was not uncovered during her hospital stay or her follow-up visits. Before divorcing her husband she sustained other serious injuries. There were a few women whose physicians had discussed spouse abuse with them, and those physicians were held in high esteem.

This second study was very small and contained a biased group of women, i.e. only those who were willing and able to be interviewed. Secondly, answers may have been biased because the interviewer was a family doctor asking what they expect out of family doctors and they may have given answers that they thought the physician wanted to hear.

SUMMARY

Spouse abuse is very common. There are certain demographic predictors but it is found in all walks of society. Spouse abuse is a cyclic phenomenon that often accelerates in frequency and severity. Thus it is important to intervene early. Abuse occurs because the abuser needs to feel power and control in his relation-

ship; and he is unable to control his anger. Abuse is not because of anything the victim might have done. Abuse results in a dysfunctional female with low self esteem. Treating the abused female is mostly supportive care from both a medical and emotional standpoint. Treating the abusive male consists of teaching impulse and anger control. Abusers need to learn that violence is unacceptable and to accept any appropriate blame. Then they should realize that they can have respect and control in their lives without being abusive.

Spouse abuse is a difficult but important diagnosis to make early. Unless primary doctors; the family practitioners, general practitioners, internists, pediatricians, obstetrician/gynecologists, and emergency room physicians look for spouse abuse, the diagnosis will be missed.

REFERENCES

1. Cohen M: Domestic violence. *Med Law* 1985;4:19-27.
2. Straus M: Wife beating: How common and why? *Victimology: An Intn'l J* 1978;2(3-4):443-458.
3. Straus M, Gelles R: Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *J of Marriage and the Family* 1986;48:465-479.
4. Helton A, Snodgrass F: Battering during pregnancy: Intervention strategies. *Birth* 1987;14(3):142-147.
5. Rath G, Jarratt L, Leonardson G: The rate of domestic violence against adult women by their male partners. *J Am Bd FP* 1989;(2):227-233 (Oct/Nov).
6. Finkelhorn R, Gelles R, Hotaling C, Straus M: The dark side of families, current family violence research. Beverly Hills; Sage Publication 1983, 9-47.
7. Christiano M, Pollard E, Sturdevant B, Benson G, Peron C, Amntruda T: Battered women: A concern for the medical profession. *Conn Med* 1986;50(2):99-103.
8. Milner J, Gold R: Screening spouse abusers for child abuse potential. *J Clin Psychology* 1986;42(1):169-172.

9. Walker L: The battered women syndrome. New York, Springer Publishing Co;1984:155-167.
10. Dickstein L: Spouse abuse and other domestic violence. *Psy Clin of N Am* 1988;11(4):611-628.
11. McGrath P: The development and implementation of a hospital protocol for the identification and treatment of battered women. Monograph from the National Clearinghouse on Domestic Violence. Nov 1980 (5). Dept. of Health and Human Services, Washington, DC.
12. Viken R: Family violence - aids to recognition. *Post Grad Med* 1982;71(5):115-122.
13. Hamberger L, Hastings J: Characteristics of male spouse abusers consistent with personality disorders. *Hosp and Comm Psy* 1988;39(7):763-770.
14. Moehling K. Battered women and abusive partners: Treatment and strategies. *J of Psychosocial Nurs* 1988;26(9):9-16.
15. Roy M: The abusive partner, an analysis of domestic battering. New York, Van Nosrand Reinhold Co, 1982:17-33.
16. Maiuro R, Cahn T, Vitaliano P, Wagner B, Zegree J: Anger, hostility, and depression in domestically violent versus generally assaultive men and nonviolent control subjects. *J of Consult and Clin Psychology* 1988;56(1):17-23.
17. Nuttall S, Greaves L, Lent B: Wife battering: An emerging problem in public health. *Can J of Pub Hlth* 1985;76:297-299.
18. Strube M: The decision to leave an abusive relationship: Empirical evidence and theoretical issues. *Psychological Bulletin* 1988;104(2):236-250.
19. Symonds A: Violence against women - the myth of masochism. *Am J of Psychotherapy* 1979;33(2):161-173.
20. Goodstein R, Page A: Battered wife syndrome: Overview of dynamics and treatment: *Am J Psy* 1981;138(8):1036-1044.
21. Rounsaville B: Battered wives: Barriers to identification and treatment. *Am J Orthopsychiatry* 1978;48(3):487-494.
22. Metha P, Daydrea L: The battered woman. *AFP* 1988;37(1):194-199.
23. Chez R: Woman battering. *Am J of OB and Gyn* 1988;158(1):1-4.

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Auxiliary News



Karen Pekas, President, South Dakota State Medical Association Auxiliary

As the South Dakota State Legislature continues in full swing, the members of the medical auxiliary want to remind our physician spouses that we are ready, willing and more importantly available to be involved when you need us. I am reminded of the US WEST jingle advertising their yellow pages on television. "Use me, use me!" We want to help contact legislators whenever we are needed during this legislative session!

The potential to make a difference in the legislative arena has led to active participation on the part of auxiliaries across the nation for many years. But as government involvement in health care delivery continues to increase and with it the need for grassroots action, the AMA Auxiliary Legislation Committee calls on members to renew their commitment to explore our potential by becoming knowledgeable and involved on issues of vital concern.

Our emphasis is on increasing awareness and understanding of the issues and concerns and then putting our grassroots action programs to work. "The result is that auxiliaries feel confident of their ability to be involved in the issues that matter to the medical profession, and thus to ourselves and our families," reports our 1988-1989 Legislation Committee Chairman, Mary Lynn Smith.

The auxiliary's success in legislative action last year was two-fold. Firstly a prevailing team spirit at all levels of the federation created a stronger legislative network as we realized that we are in this thing together.

Secondly, we worked within the natural partnership between medical associations and auxiliaries.

State medical associations now integrate auxiliaries into their legislative activities in increasing numbers as they recognized the importance of using auxiliary members' abilities and talents in the legislative arena. Auxiliary legislation chairmen in 37 states (South Dakota included) attend medical association legislation council meetings, 19 with voting privileges.

The auxiliary plans to be in Pierre on January 30 to provide an early morning "Breakfast with the Legislators". We will remain in Pierre for the day so that we can see the "action" of the legislature. Peggy Huber, our on the spot legislation chairman in Pierre and District Four, with the help of representatives of the other districts will be up bright and early to greet the legislators before committee meetings begin. Our thanks again to Lorin Pankratz for his help in arranging this for us. Our legislators need and want to hear from us, their constituents, on health related issues. #

A handwritten signature in cursive script, reading "Karen Pekas".

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Correspondence

Hospital officials in South Dakota reacted with surprise and confusion to the comment of SDSMA President Michael Pekas, MD in his "President's Page" in the July 1989 issue of the South Dakota Journal of Medicine. Commenting on a number of national developments, Dr. Pekas, apparently citing material from the American Medical Association, reports "...a movement on the part of the American Hospital Association to convince Congress that they have in the past accepted an unfair share of health care funding cuts and that any further cuts in health care should come from physicians or from Part B funding". (emphasis is added)

Your readers should be aware that this has never been the policy of the American Hospital Association, the South Dakota Hospital Association or, to the best of our knowledge, any individual hospital.

At the local level, most hospitals and medical staffs strive for cohesiveness and a pattern of mutual cooperation within their own community.

At the state level, SDHA and SDSMA have worked very closely through both staff and membership to benefit our respective constituencies in a mutually cooperative and supportive manner.

At the national level, it has been AHA's (and we believe AMA's) strategy from the very beginning of the Medicare budget crisis not to pit physicians against hospitals in any element of federal advocacy efforts. The reasons for that approach should be self evident, and the results of any other approach would be mutually self destructive. There's nothing Congress would like more than for the AHA and AMA to waste their time and efforts on each other rather than the many issues impacting jointly on physicians and hospitals.

While hospitals both in South Dakota and throughout the country have, indeed, attempted to convince Congress that the precarious financial condition of many hospitals indicates strongly that additional cuts in Medicare payments should not be made, both AHA and SDHA have specifically and intentionally not advocated cuts in physician payments.

To imply otherwise is not only inaccurate but does considerable disservice to the record of mutual effort and joint activity between physicians and hospitals not only at the national level but, especially, here in South Dakota.

Sincerely,
Patricia Biddle, Administrator,
Platte Community Hospital and
Chairman, South Dakota Hospital Association
Frank M. Drew, President,
South Dakota Hospital Association

Reply from Dr. Pekas to Pat Biddle and Frank Drew

I received a copy of your letter to Dr. Van Demark, dated October 10, 1989, in which you stated some surprising confusion in reference to a quote from the President's Page in the July 1989 issue of the SOUTH DAKOTA JOURNAL OF MEDICINE. The quote stated that there is a movement on the part of the American Hospital Association to convince Congress that they, in the past, have accepted an unfair share of health care funding cuts and that any further cuts in health care should come from physicians' Part B funding. This information was taken from the American Medical News, which I am sure you are familiar with. It appeared in an article discussing some of the funding and budget cutting plans that Congress had for Medicare for the upcoming yearly budget. In that article, there was a statement made that lobbying efforts were being carried out on behalf of the American Hospital Association to convince Congress that further cuts in Part A funding to hospitals should be shifted to Part B funding because of the fact that the hospitals had already accepted more of their share of cuts than the physicians had been forced to accept in Part B Medicare funding. As you are aware, there has been a large shift of procedures that were previously allowed under Part A billing in Part B by the federal government in their attempts to save money by doing away with facility fees and hospital charges, etc. generated by these procedures and forcing them into the physicians' offices where no procedural fees or facility fees are allowed. This undoubtedly was the genesis for the American Hospital Association's concern in further related budget cuts.

I am pleased that you report that the American Hospital Association and the South Dakota Hospital Association have never been a party to any of these activities and I certainly agree with you that our two organizations must remain close and function in a mutually cooperative and supportive manner. I also totally agree with your feelings in regard to unity between the American Hospital Association and the American Medical Association on a national basis. We have all seen in the past that the federal government consistently tries to splinter and divide medicine within its own house as well as relationships that the physicians have always had with their hospitals.

You can rest assured that your concerns about rural health care and the precarious financial condition of many rural hospitals is shared completely by myself and the members of the South Dakota State Medical Association. We have gone on record time and time again

supporting the concept of rural medicine and the survival of our rural hospitals in the state of South Dakota.

I certainly hope this letter will allay your concerns. If you would like to see a reprint of that particular article in the AM News, I will try to provide you with the same.

Sincerely,
Michael W. Pekas, MD, FACS, President
South Dakota State Medical Association

I have serious reservations concerning unified membership for the AMA and the SDSMA. Dr. Pekas is certainly correct when he cites the serious problems facing the medical profession today. But where was the AMA when these problems were developing? One only has to look at the geometric increase in paperwork and government control to assess the effectiveness of the AMA at the national level.

Occasionally there is a story in the national media unfavorable to medicine or physicians. I have never seen an appropriate or timely rebuttal by the AMA. This may explain the fact that, while there has been a steady loss of prestige for the medical profession, most people still respect, admire and trust their own doctors.

Many of the recent improvements in the malpractice climate, such as tort reform, limits on awards and arbitration panels have been made at the state or local levels. The SDSMA has had some successes in dealing with state and local officials. I cannot see any advantage in mandatory membership in the AMA which has consistently been more than a day late and a dollar short.

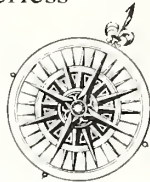
When the Council is considering unified membership, it had best consider how many of us will choose no membership.

Sincerely,
S.B. Altman, MD
Aberdeen, SD

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Future Meetings

February

Ambulatory Health Care Standards - Strategies for Quality Care, Altamonte Springs Hilton, Altamonte Springs, FL, Feb 1-2. Fee: \$335. Contact: Dee Atkins, FL Hosp Assoc, 307 Park Lake Cir, PO Box 531107, Orlando, FL 32853-1107.

* * *

Issues in Pediatrics, Arrowhead Resort, Alexandria, MN, Feb 3-4. Fee: \$50. AMA Category I credit avail. Contact: Sue Heinze, 720 Fourth St N, Fargo, ND 58122. Phone: (701)234-5737.

* * *

Chronic Fatigue Syndrome and Fibromyalgia: Pathogenesis and Treatment, Biltmore Hotel, Los Angeles, CA, Feb 16. Contact: Richard Godwin, (213) 394-3322 or write Chronic Fatigue Syndrome Instit, 436 N Roxbury, #110, Beverly Hills, CA 90210.

* * *

Pediatrics in Progress, Hyatt Regency Embarcadero, San Francisco, CA, Feb 16-18. Fee: \$365. 16 hrs AMA Category I credit. Contact: CME Registration, Am Acad of Peds, PO Box 927, Elk Grove Village, IL 60009-0927. Phone: 1-800-433-9016, ext 7567.

* * *

The Eighth Annual International Symposium on Man and His Environment in Health and Disease, Grand Kempinski Hotel, Dallas, TX, Feb 22-25. Fee: \$395. 24.5 hrs AMA Category I; 22 hrs AAFP prescribed credit; 27.5 hrs AOA Category 2-D credit. Contact: Am Environmental Hlth Found, 8345 Walnut Hill Lane, #205, Dallas, TX 75231-4262. Phone: (214) 361-9515.

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AMA National Leadership Conference 1990 - "Strong Medicine", Hyatt Regency, Phoenix, AZ, Feb 24-26. Fee: \$390. Contact: Nat'l Leadership Conf 1990, AMA, 535 N Dearborn St, Chicago, IL 60610-9986. Phone: 1-800-621-8335.

March

National Breast Conference, New Orleans, LA, Mar 15-18. Contact: Am College of Radiology, 1891 Preston White Dr, Reston, VA 22091. Phone: (703) 648-8900.

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Surgery for Epilepsy, Masur Aud, NIH, Bethesda, MD, Mar 19-21. Contact: Conf Registrar, Prospect Assoc, Ste 500, 1801 Rockville Pike, Rockville, MD 20852. Phone: (301) 468-6338.

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Pediatrics 1990, Marco Island Hilton Hotel, Marco Island, FL, Mar 30-Apr 1. Fee: \$365. 16 hrs AMA Category I credit. Contact: CME Regis., Dept of Educ, Am Academy of Peds, PO Box 927, Elk Grove, IL 60009-0927. Phone: 1-800-433-9016, ext 7657.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

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JOURNAL OF MEDICINE

USD School of Medicine
Hand Tumors: Extraskkeletal
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A Review



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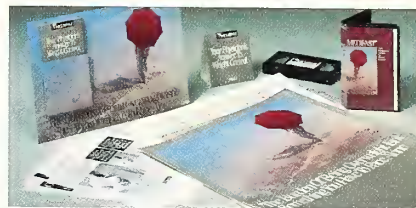
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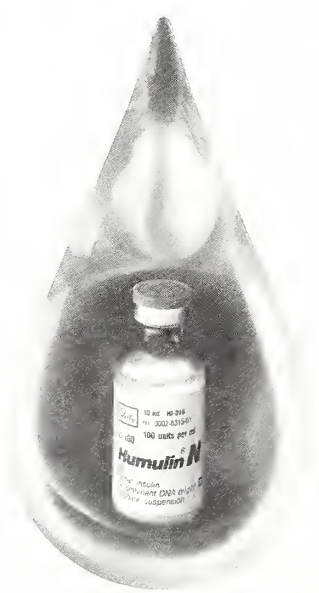
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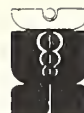
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Hand Tumors: Extraskkeletal Chondroma and Osteoma--Case Reports

Robert E. Van Demark, Sr, MD¹

Robert E. Van Demark, Jr, MD¹

Louis Hogrefe, MD²

ABSTRACT

Superficially simulating ganglion, extra skeletal tumors of cartilage and bone may occur in the soft tissues of the hand with no relation to the skeleton. Typical examples are presented with the pathological findings and clinical findings.

Chondromas and osteomas usually are associated with bone, another mesenchymal derivative. In the hand they may be extraskkeletal in location.^{4,7,9} They are round, firm and superficially may resemble the common ganglion.

The following cases, with the pathological findings, are illustrative of these tumors which occurred in individuals older than the typical age (second to fourth decade) for ganglion.

Case I

A white male insurance salesman, 46 years of age, was seen on April 11, 1989, complaining of a nodule on the left little finger. The tumor had been present for many years. There was no history of injury. The patient felt it had gotten larger the past year.

Physical examination revealed a white male, 46 years of age, 5 feet 10 inches tall and weighing 196 pounds. Examination was not remarkable except for a small tumor of the left little finger on the volar-ulnar border at the proximal interphalangeal joint level. X-rays showed minimal calcification in the tumor.

On May 15, 1989, the patient underwent excision of the tumor under regional anesthesia. The ulnar digital nerve was found to be wrapped around the tumor and was dissected away from it. The tumor was then removed together with the distal portion of the A2 pulley and the wound was closed.

The pathological report was as follows: "The tumor consisted of a shaggy, shallow, tan, firm soft tissue mass measuring 0.8 cm in diameter. A cross section revealed a glistening, grey-white, solid cut surface." The final diagnosis was "Extraskkeletal Chondroma" (Figure 1).

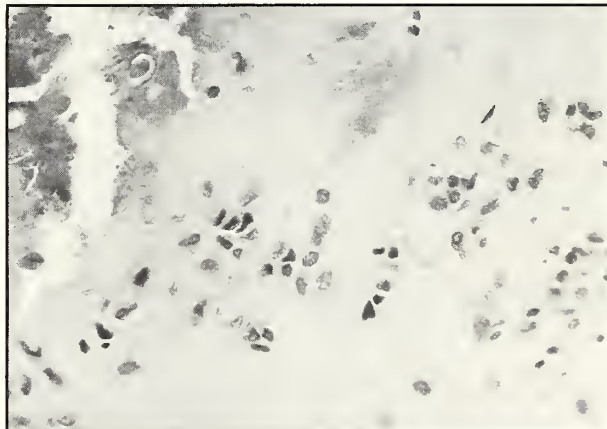


Figure 1

Typical cartilage of extraskkeletal chondroma.

1. Orthopedic Surgeons. USD School of Medicine and the Hand Surgery Clinic, Royal C. Johnson Veterans Memorial Hospital, Sioux Falls, SD.
2. Formerly USD School of Medicine. Now practices in Encinita, CA.

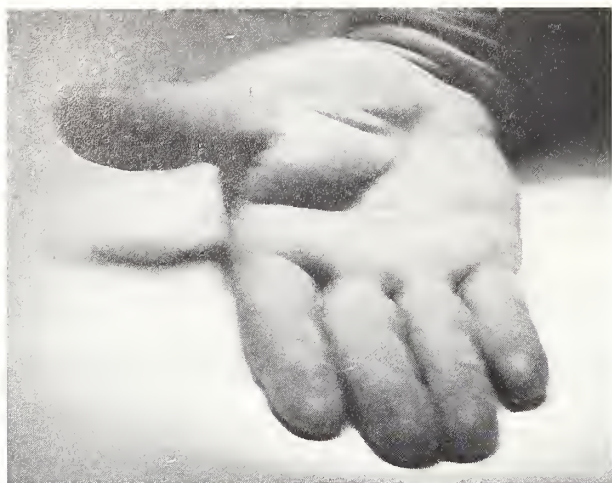


Figure 2

Tumor of the right palm in a farmer, age 50.

The patient's post-operative course was uneventful and recovery was complete. To date there has been no recurrence of the tumor.

Case II

A 50-year-old white male farmer was seen on March 7, 1947, with the complaint of a tumor in the palm of the

right hand of six or eight years duration. The patient was right-handed. There was no history of any definite injury to this area. He stated he thought the tumor was getting larger and was "in the way" when he worked; it was not locally tender or painful.



Figure 3

Roentgenogram of tumor, showing an irregular trabeculated bony mass with smooth surface.

Physical examination revealed a hard mass of approximately 2 cm in diameter in the subcutaneous soft tissues of the palm (Figure 2). The mass was slightly movable, firm in consistency and not tender locally. There was no motor or sensory disturbances. A roentgenogram of the hand (Figure 3) revealed an irregular, trabeculated bony mass with a smooth surface located in the soft tissues between the first and second



Figure 4

Excised specimen was easily enucleated from the surrounding tissue

metacarpals. Excision of the tumor was recommended.

Treatment was deferred by the patient until June 1, 1948, when the mass was excised through an incision parallel to the thenar crease. The tumor (Figure 4) had no skeletal attachments and was enucleated without difficulty and the wound closed with interrupted sutures. The patient's post-operative course was uneventful and recovery was complete (Figure 5).



Figure 5

Post-operative photograph of the right hand; no evidence of recurrence over a period of thirty years.

On pathological examination the tumor measured 2 cm in its greatest diameter and was covered by a rim of tough yellowish tissue on its periphery. The pathological report on (sections of) the tumor (Figure 6) stated it to be "composed of small spicules of normal appearing bone surrounding marrow spaces filled with adult fat cells. The outer surface consisted of a thick layer of acellular avascular tissue. There was no evidence of malignancy". The pathologic diagnosis was "Osteoma".

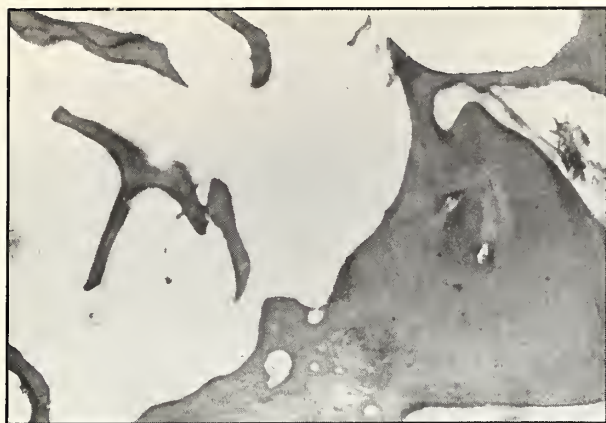


Figure 6

Photomicrograph of tumor showing normal-appearing bone trabeculae with marrow spaces (original magnification x 980).



Figure 7

Post-operative (1976) roentgenogram of the hand, without any evidence of recurrence.

This patient returned to his farming with no further disability. There has been no evidence of recurrence, nor has any similar tumor appeared elsewhere. Recovery was permanent and complete and the patient later retired. Roentgenograms of the right hand were normal twenty-eight years after surgery (Figure 7). When last seen at eighty years of age, he had no problem with his hand. The patient subsequently expired following abdominal surgery.

DISCUSSION

These tumors simulate ganglion, the most common tumor of the hand which has been reported to occur at practically all the joints of the hand. Typical locations of ganglion are the dorsum of the wrist, the volar base and dorsum of the fingers and the volar-radial aspect of the wrist. The ganglion usually transilluminates clearly if sufficiently large and superficial in location.

Extraskeletal chondromas of the hand have a reported local recurrence rate of 10% of patients.⁷ Dis-

tant metastases have not been reported and we have found no examples of malignant dedifferentiation.

In Case 2, the examining pathologist could only find mature bone on which to base his diagnosis. Possibly a diagnosis of heterotrophic bone formation might have been appropriate. There was no evidence of zone phenomena (with central mitotic tissue and peripheral more mature tissue)^{1,5} which is present in the atraumatic³ as well as traumatic myositis ossificans⁶ usually occurring adjacent to the skeleton. It should be noted that both chondrosarcoma⁸ of the soft tissue and osteogenic sarcoma² may rarely occur in the soft tissues of the hand.

REFERENCES

1. Ackerman LV: Extra-osseous localized non-neoplastic bone and cartilage formation (so-called myositis ossificans). Clinical and pathological confusion with malignant neoplasms. *J of Bone Joint Surg* 1958;40A:279-298.
2. Allen CJ, Soule EH: Osteogenic sarcoma of the somatic soft tissues. *Cancer* 1971;27:1121-1133.
3. DeSmet L, Vercauteren M: Fast-growing pseudomalignant osseous tumor (Myositis Ossificans) of the finger. A case report. *J of Hand Surg* 1984;9B:93-94.
4. Ecker ML: Soft tissue osteochondroma of hand. *NY State J of Med* 1966;66:3065-3066.
5. Enzinger FM, Weiss SW. *Soft Tissue Tumors*. St. Louis, CV Mosby 1988;pp 888,889.
6. Gilmer Jr WS, Anderson LD: Reactions of soft somatic tissue which may progress to bone formation. Circumscribed (traumatic) myositis ossificans. *South MJ* 1979;52:1432-1488.
7. Mahoney JL: Soft tissue chondromas of the hand. *J of Hand Surg* 1987;12A:317-320.
8. Ream JR, Carson JM, Holsworth DE, Millender LH: Chondrosarcoma of the extraskeletal soft tissues of the finger. *Clin Orthopedics* 1973;97:148-152.
9. Rosenfeld M, Kurzer A: Soft tissue chondroma of the hand. *Hand* 1980;12:189-192.

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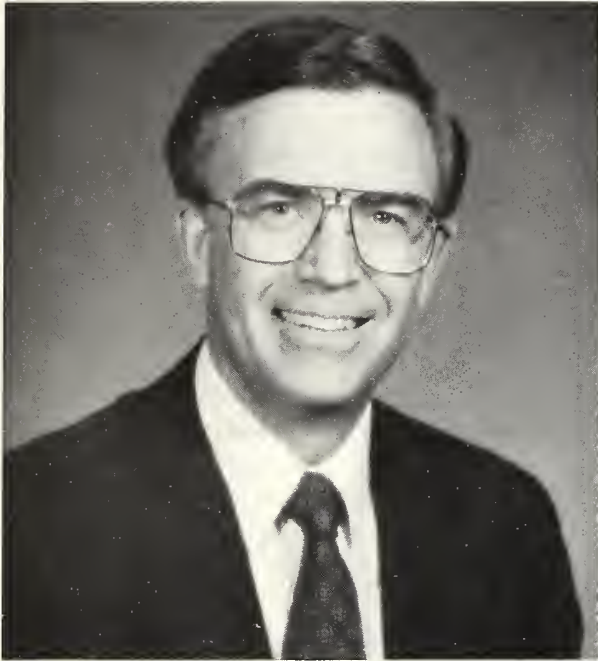
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President's Page



Michael W. Pekas, MD, President, South Dakota State Medical Association

Palm Trees, White Sand & Sea Breezes

At the risk of stealing the thunder of your AMA delegate, Dr Lushbough, and your alternate delegate, Dr Lang, I felt it would be appropriate to briefly outline what occurred at the interim meeting of the AMA House of Delegates that met in Honolulu between the 3rd and 6th of December. Talk about great timing, being president of the State Medical Association, I was able to attend the meeting and Karen and myself had a marvelous time. This was, however, a very busy meeting; there were 187 resolutions and 79 Board and Council reports which were considered. Four hundred thirty five delegates were seated. It might be interesting for you to know that 78 delegates represented national medical specialty societies and ten delegates represented medical students, resident physicians, hospital medical staffs, young physicians, the armed services, public health and veterans administration. As you can see, the AMA House of Delegates does consist of broad representation from organized medicine and is democratic enough so that all of these organizations within the AMA have a fair hearing.

The most controversial and important report that was considered was Report QQ by the Board of Trustees which addressed and responded to recent incidents

reported in a Chicago newspaper pointing to financial mismanagement questions surrounding the executive vice-president, James Sammons, MD. Although Dr Sammons was given credit for doing a good job as executive secretary during his tenure in that position, he did accept responsibility for the decisions that led to the controversy and admitted his error in making these decisions. He expressed his support for the changes recommended by the Board, which would provide closer communication and control of the executive and administrative offices of the AMA. There was a spirited debate during the reference committee hearing as well as on the floor of the House of Delegates when the report was considered. However, the report was accepted by the full House of Delegates and will definitely strengthen control of the executive and administrative staff of the AMA by the House of Delegates and the Board of Trustees.

Dr Sammons will leave his position as executive vice president and leave employment of the AMA as of March 31, 1991, with phase-in of a new executive vice-president in December of 1990 to assure an orderly transition in administrative leadership. The search for Dr Sammons successor has already begun.

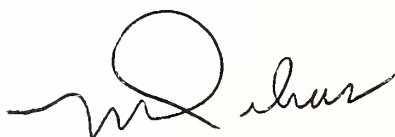
The House approved a major policy update on medicolegal social implications of AIDS and HIV infection. The report addressed issues related to education, research, national policy, financing media coverage and the prevalence and incidents of AIDS. Several resolutions relating to drug abuse were considered and passed with the recognition that substance abuse is a major health problem in the United States today and requires a multifaceted approach to try to neutralize this terrible problem within our society. The House adopted a resolution introduced by the Young Physicians Section that addressed the involvement of alcohol as a leading cause of morbidity and mortality in motor vehicle accidents. Health insurance coverage for the uninsured was also addressed through a resolution introduced by the American Academy of Family Physicians. The resolution from the South Dakota State Medical Association addressing Joint Commission standards for Quality Assurance was submitted through the North Central Medical Conference. It was broadened in the reference committee hearing and passed by the House of Delegates asking the AMA to study the efficacy and cost effectiveness of the JCAHO's Quality Assurance standards and to report back to the House of Delegates at the 1990 interim meeting.

There were so many other issues addressed at the interim meeting that were of critical importance to the practicing physician that I would like to apprise you of,

but the sheer volume prevents me from commenting on everything that was considered and addressed. Again I would encourage you all to be involved in and participate in the activities of organized medicine as that is the only way we are going to be able to ensure the survivability of medical practice as we know it.

In conclusion, I would just like to run over briefly with you what appears to be the RBRVS in its final form. The program will be implemented with a 5-year transition beginning in 1992, with a geographic cost of practice adjustment. The average Medicare payments for rural physicians are projected to increase 12 - 14% and average payments for urban areas are projected to drop approximately 3%. In addition, physicians in rural and urban manpower shortage areas receive a 10% payment bonus starting in 1991. There are no expenditure targets in the RBRVS. A voluntary Medicare Volume Performance Standard or MVPS will require the Secretary of HHS to identify, analyze and report to Congress the sources of volume increases in Part B expenditures. The MVPS will establish the desired benchmark for Part B expenditures, however, does not allow for automatic reduction of expenditures that exceed it and will be only one of several factors that Congress may consider in setting future updates in the RBRVS conversion factor. If Congress fails to establish an update for physicians' fees, the default update has an absolute floor beneath which physicians' fees cannot drop. This will be based on a percentage of the Medicare Expenditure Index as set for the years 1992 through 1996. MEI updates will be delayed until April 1, 1990. Thereafter, primary care will receive full MEI updates. Other services will receive a 2% increase with no increase for radiology and anesthesia services. As far as physicians' Part B remuneration for the upcoming fiscal year is concerned, we will remain in sequestration at a 2% reduction in payment for services through March 31, 1990 and thereafter a 1.3% reduction in services for the remainder of the fiscal year. As you are aware, this is a very brief and superficial overview of what I am sure will be a very complicated and hard to understand physicians' remuneration program after the Federal Government has a chance to run it through its various paper mill oriented organizations.

I hope the preceding report will fill you in on what happened at the interim meeting and enlighten you a little bit on some of the aspects of the planned physicians' payment reform measures that we will be dealing with in the upcoming first years of this new decade. #



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Occupational Hazards in South Dakota

Robert E. Van Demark, Sr, MD, Editor

In the past, farm accidents were the major occupational hazard in South Dakota.

Recently the Department of Labor reported that in 1988, 2.46 million work related injuries and illnesses occurred nationally. Highest was the automotive manufacturing industry where 19.5 injuries were reported for each 100 full-time workers. It should be noted the reporting requirements of this industry are more firmly enforced than in rural areas.

With the recent migration of small industries to South Dakota, there has been an increasing incidence of occupational disabilities in the employees. The physicians of the state are now called upon, not only to treat the direct injuries in this new group of patients, but also the Accumulative Stress Disorders (ASD) (also known as repetitive strain disorders, overuse syndromes and repetitive motion disorders).

National statistics for 1988 indicate 11.5 million worker casualties were from repetitive motion, an ergonomic illness.

Repetitive motion problems have been clearly identified in manufacturing, meat packing, construction and other industries. It has been shown the risk of hand and wrist tendonitis is 29 times greater in persons who perform highly repetitive and forceful jobs, as compared to those whose jobs are low in repetitiveness and force. It has been postulated - but not proven - that the viscous deformation of the tendons and adjacent tissues is a factor in this problem.

In the carpal canal, the median nerve may be affected. Any swelling or pressure behind the nerve presses the nerve forward against the firm transverse carpal ligament. An increased intracompartmental pressure occurs within the carpal canal, particularly with extremes of flexion and extension of the wrist.

Generally, only a fair success rate has been achieved with conservative and/or surgical treatment. When the patient returns to his previous work, recurrent symptoms, swelling and weakness may occur, often with associated tenosynovitis surrounding the tendonitis. The operative complication rate is elevated. Careful preoperative evaluation of the patient is important.

It is hoped in the future industrial engineers will eliminate some of the stress which human anatomy is often unable to cope with. #

South Dakota Society Of Pathologists

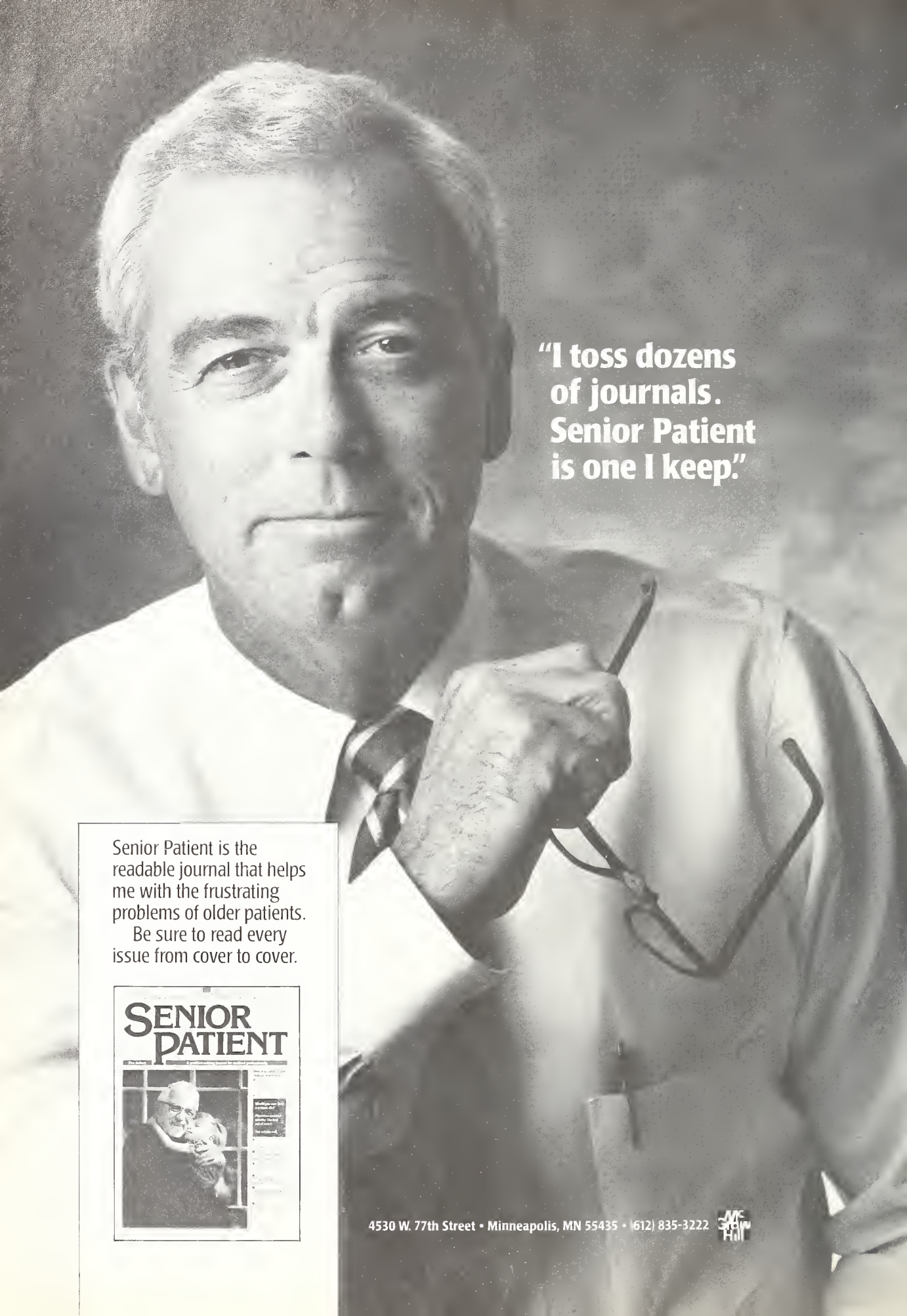
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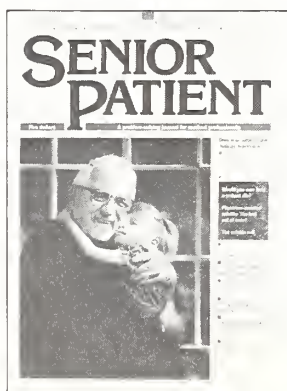




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The Management of Intoeing: A Review

Richard G. Briggs, BA¹
Walter O. Carlson, MD²

ABSTRACT

Children presenting with an intoeing gait are the most common pediatric problem seen by orthopedists. Most parents are concerned that this rotational problem may result in a permanent disability or impediment of their child's physical performance. The etiologies of these conditions are still debated, although the structural conditions giving rise to intoeing can be correlated with the age of onset. The extent of the rotational problem is determined through physical examination and the measurement of indicative angles. A rotational profile is compiled from the values obtained, allowing the child's progress to be followed. Many children spontaneously resolve the structural problems responsible for their intoeing gait. The success one attributed to the traditional methods for treating intoeing is now believed to be the result of this natural resolution.

A child's first visit to an orthopedist is often for treatment of a lower extremity rotational problem. Intoeing is the most common rotational variation and the methods of treating it are a current subject of debate. Traditionally shoe modification and splinting have been the primary approaches in caring for children with rotational variations. The corrective value once attributed to these methods is now believed to be the result of their natural resolution.

Most rotational deformities are structural and present at rest. The etiology of these conditions is unknown but a number of theories have been proposed. The position of the fetus in utero can mold the femur laterally and the tibia medially.¹ The rotational deformity caused by this molding usually resolves spontaneously. A genetic predisposition is suggested from similarities in the rotational profiles of parents and their children.¹ Environmental factors also seem to influence the degree of rotational variation. Sleeping and sitting postures can perpetuate or delay the spontaneous resolution of these conditions.¹

Proper classification of these problems begins with a complete medical history and examination. It is important to note the apparent age of onset, rate of progression, and the parent's own description of the problem. A screening examination is needed to rule out other conditions such as congenital hip disease or CP which may account for the rotational variation.¹ A rota-

tional profile is compiled to determine the degree and progression of this condition.

The following measurements are made and included in such a profile:

- 1) Foot progression angle
- 2) Hip rotation
- 3) Tibial rotation
- 4) Foot shape

Foot Progression Angle (FPA)

The foot progression angle is defined as the angle between the axis of the foot and the patient's line of progression.² This is determined by watching the patient walk along a straight path, and then estimating the average degree of intoeing or outtoeing for each foot (see Fig. 1). The amount of intoeing is expressed as negative degrees, while outtoeing as positive degrees.² It is important to mention that some children may show less in and outtoeing during an examination.¹ This so called "Doctor Walking" can usually be eliminated

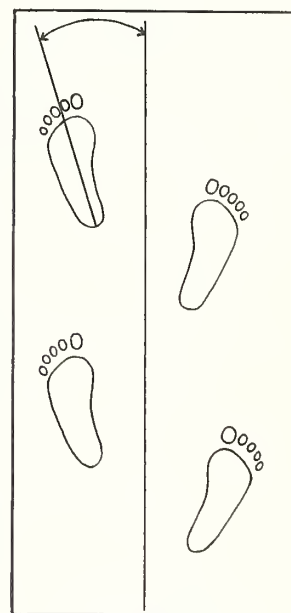


Figure 1

Foot Progression Angle (FPA)

1. Student, USD School of Medicine, Sioux Falls, SD.
2. Orthopedic surgeon, Midwest Orthopedic Center, Sioux Falls, SD.

by having the patients exert themselves. Exertion will fatigue the child, thereby reducing the effectiveness of the patient's compensatory mechanisms.

Hip Rotation (HR)

The degree of hip rotation a child possesses determines the amount of femoral anteversion present. Medial and lateral hip rotation are measured with the patient in a prone position, pelvis level, and the knees flexed.² Medial rotation is determined by the angle between the vertical and the axis of the tibia. The legs are allowed to fall into full medial rotation by gravity alone (see Fig. 2). Lateral rotation uses the same position but in this case the legs are allowed to cross (see Fig. 3).

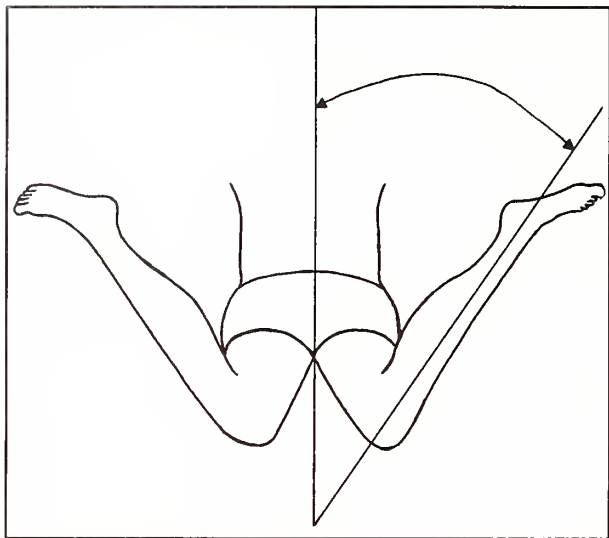


Figure 2

Medial Hip Rotation

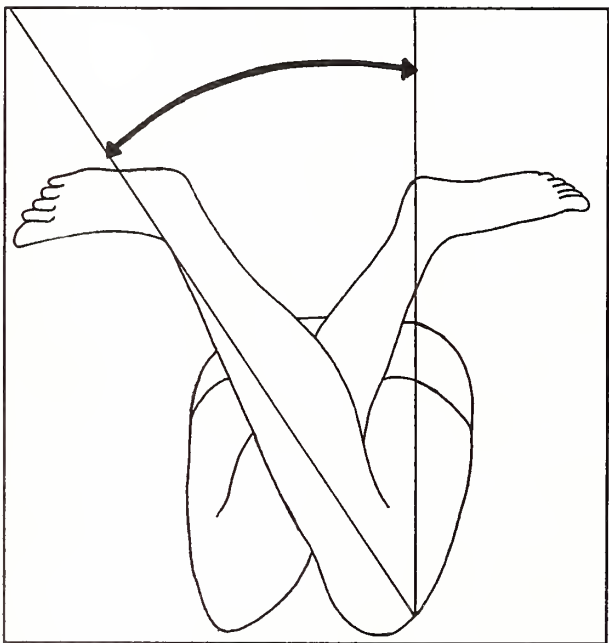


Figure 3

Lateral Hip Rotation

Thigh Foot Angle (TFA)

TFA is used to indicate tibial rotation, and is defined as the angular difference between the axis of the thigh and the foot.² To measure this angle the patient lies prone, with the pelvis flat, and the knees flexed to 90 degrees. The foot and thigh are viewed from directly above (see Fig. 4). It is important for the foot to remain relaxed during the measurement of this angle.

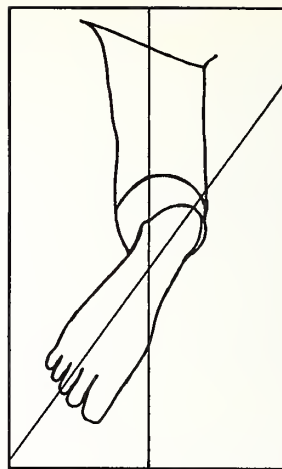


Figure 4

Thigh Foot Angle

Foot Shape

The shape of the sole of the foot should be evaluated, to ascertain its bearing on the rotational variation present.¹

Values obtained from the rotational profile are recorded and then compared with a "normal" range of values.² Rotational problems that fall within this range are termed "rotational variations".¹ Rotational problems two or more standard deviations outside this range are known as "torsional deformities".¹

The foot progression angle is greatest and most variable during infancy. The higher mean value and broader "normal" range are a result of greater lateral rotation of the hip.² During late childhood and adulthood, lateral rotation again becomes relatively greater, presumably because of decreased medial hip rotation. The mean FPA is +10 degrees and the range is -3 to +20.²

Medial rotation of the hip has been found to be greater in females than males by a mean difference of 7 degrees.² Medial rotation is greatest in early childhood and then declines throughout life. From middle childhood on, the male mean was 50 degrees with the normal range being 25 to 65 degrees.² Females showed a mean of 40 degrees and normal range from 15 to 60 degrees.² It is of interest to note that a concurrent reduction in lateral rotation exists in cases where medial rotation causes a torsional deformity.³

Lateral rotation is greatest during infancy, declines throughout childhood and remains relatively constant during adulthood. There are no sexually related differences noted with lateral rotation.² During mid-childhood the mean is 45 degrees and the normal range is from 25 to 65 degrees.²

The thigh foot angle increases and becomes less variable throughout childhood.² At mid-childhood the mean angle is approximately 10 degrees and the normal range -5 to 30 degrees.²

When observing the sole of the foot the lateral border is normally found to be straight. Convexity is evidence of metatarsus varus which can cause tibial torsion.¹ Knowledge of these angles can reveal the probable cause of a rotational problem such as intoeing. Diagnosis and treatment of rotational problems are based on determination of the angles included in this rotational profile.

Three conditions commonly produce intoeing:

- 1) Metatarsus varus
- 2) Internal tibial torsion
- 3) Femoral anteversion³

Metatarsus varus is a term that defines a variety of foot problems. This condition is milder in type but similar in origin to clubfoot. The lateral border of the foot is convex and there is often an increased separation of the great and second toes. In contrast to clubfoot the heel is never in a varus position and there is no fixed equinus. In milder cases the foot deformity is flexible and the problem generally resolves spontaneously.¹ Stretches, exercise, shoe modification, and splints are not found to be effective for those children requiring treatment.¹ Corrective casting may be required in more severe cases, with best results when the casting is done before the child begins walking.¹ In children age 1 to 5, nonoperative correction is still possible if long casts are used. Operative correction for simple metatarsus varus is practically never appropriate because of the poor results.¹

Internal tibial torsion is the most prevalent determinant of intoeing. This condition usually presents in the second year when the child begins walking.¹ The deformity is often assymetric with more severe involvement on the left side.³ Improper sitting and sleeping postures can worsen the condition and delay its resolution.³

Sleeping face down with the feet turned underneath or habitually sitting on the feet can delay the natural correction of this condition. Adjusting postural habits may be all that is needed to manage these patients. In more severe cases night splinting has been the treatment of choice, though its value has not been proven.¹ Operative correction is seldom an appropriate option because of the risk of creating a compartment syndrome or peroneal nerve injury.¹ Operative correction may be indicated when the deformity is greater than four standard deviations, there is persistence of the torsion into middle and late childhood, and significant cosmetic disability is present.

Increased femoral anteversion is associated with excessive medial rotation of the hip, and commonly causes intoeing in early childhood. Nearly all children show some degree of femoral anteversion, but only those outside the normal range cause torsional deformities. The peak severity occurs between the ages of four and six

years, and may be assessed by measuring medial and lateral rotations of the hip. The clinical manifestations include an intoeing gait with a medially rotated patella. Medial rotation of the hip is excessive while lateral rotation is generally limited.¹ These children also show a tendency to assume a "W" position while sitting, which aggravates and delays the natural resolution of this condition.³

For many years a variety of special braces, splints, and shoes; as well as corrective stretching and exercise have been used to overcome femoral anteversion. A number of studies have disproven the corrective virtue of these measures.^{1,3,5}

Disability from excessive femoral anteversion has been exaggerated. It was once thought to contribute to conditions such as flat feet, bunions, knee problems, and degenerative arthritis of the hip.¹ Femoral anteversion was also believed to pose a serious impediment to athletic ability. Recent studies have disproved these cause and effect relationships.⁶

Non operative methods of treating increased femoral anteversion have shown unfavorable results. Most children will show spontaneous resolution of femoral anteversion until the age of eight to ten. After this time the degree of torsion tends to stabilize. Operative correction is appropriate if the deformity is over three standard deviations and the child is over ten years old. Functional and cosmetic disability must be sufficient to warrant the risk of such a procedure.

Children presenting with intoeing are the most common pediatric problem seen by orthopedists. Parents may be concerned about future deficits resulting from intoeing, but for the most part these conditions will spontaneously resolve. Mechanical methods such as shoe modifications, splints, and braces were commonly used to manage these cases.¹ Recent studies suggest that these treatments are unnecessary for most cases. The success once attributed to these methods is now believed to be the result of the natural resolution of these conditions.

When the rotational problem does not naturally correct itself; more aggressive approaches may become necessary. Severe metatarsus varus in infants may require cast correction. Operative correction in middle to late childhood is occasionally appropriate for more severe and persistent deformities.

Some degree of intoeing may persist, as evident from the rotational profiles of adults. It is important for the parents to understand that mild intoeing seldom affects a child's normal development or physical performance.⁶

Documentation of a complete rotational profile is an important part of managing intoeing. Comparing data obtained from the profile to a normal range of values guides the clinician's treatment, and helps reassure the parents about the child's future. Thorough documen-

tation can determine normal rotational variations, and avoid treatments that have no beneficial value.

REFERENCES

1. Staheli LT: Rotational problems of the lower extremities. *Orthop Clin N Am* 1987;18:503.
2. Staheli LT, Corbett M, Wyss C, et al: Lower extremity rotational problems in children: Normal values to guide management. *J Bone Joint Surg* 1985;67A:39.
3. Rang M: The Easter Seal's guide to children's orthopaedics. 1982;53-58.
4. Engel GM, Staheli LT: The natural history of torsion and other factors influencing gait in childhood. *Clin Orthop* 1974;99:12.
5. Knittel G, Staheli LT: The effectiveness of shoe modification for intoeing. *Orthop Clin N Am* 1976;7:109.
6. Staheli LT, Lippert F, Denotter P: Femoral anteversion and physical performance in adolescence and adult life. *Clin Orthop* 1977;129:213.

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Leonard Gutnik, MD, Sioux Falls, has been appointed consultant medical reviewer for manuscripts, books, articles and audio visual matters relating to peripheral vascular disease for the *ANNALS OF INTERNAL MEDICINE*. Dr Gutnik practices internal medicine, with a subspecialty in peripheral vascular disease, at Central Plains Clinic.

At the South Dakota Chapter of the American College of Physicians meeting held in Yankton, **Robert F. Thompson, MD** was awarded the South Dakota Laureate Award for 1989. The award honors those Fellows of the group who have demonstrated by their example, conduct and abiding commitment to excellence in medical care, education or research, and in service to their community and the American College of Physicians.

Dr Thompson is Clinical Professor of Medicine of the University of South Dakota School of Medicine and has practiced in the Internal Medicine Department at the Yankton Medical Clinic for the past 34 years.

The American College of Surgeons has recently inducted as a Fellow, **Dr Patrick King** of Yankton.

Paul Boom, Jr, MD, of Pierre, died of a heart attack at the age of 46.

He was born March 9, 1943, in Lester, Iowa. He graduated from Beaver Creek High School in 1961; he received his BS degree from the University of South Dakota Medical School in 1966; and his MD degree from Emory University School of Medicine, Atlanta, in 1968. He married Linda Lou Laswell on June 15, 1968, in Henderson, Ky. In 1969, he completed his internship at St Luke's Hospital in Denver.

Following two years in the Navy, stationed at Idaho Falls, Idaho, he completed a radiology residency at St. Luke's Hospital in Denver. Dr. Boom practiced radiology in Paducah, Ky for 10 years and in 1984 moved to Madisonville, Ky where he completed a family practice residency in 1986. He and his family then came to South Dakota where he was a radiologist at St. Mary's Hospital in Pierre.

Survivors include his wife; two sons: Chris and Darren; his parents: Paul Sr and Marian Boom, Luverne, Minn; one brother, Marlin, Ellsworth, Minn; and two sisters: Mrs Robert (Connie) Melton, Sioux Falls; and Mrs George (Cheryl) Krumholz, Minneapolis.

Drs Carole and Curtis Buchholz, of Huron, are recipients of the Alumni Pacesetter Award recently presented at Sioux Falls College. This annual award is given to recent Sioux Falls College alumni who have made an impact in their chosen field, displaying outstanding leadership, creative or innovative developments and demonstrating Christian values. Dr Carol Buchholz is a pediatrician with the Huron Clinic and Dr Curtis Buchholz is chief of anatomical and clinical pathology at Huron Regional Medical Center.

Mary Carpenter, MD, Winner, has been named a Fellow of the American Academy of Family Physicians.

Dr Hiroo Kapur, of Huron, has received certification for her completion of a course on Pediatrics Advanced Life Support, sponsored by the American Heart Association and the American Academy of Pediatrics.

Samuel Bandiera, MD, 48, of Brookings, died of an apparent heart attack in New Orleans.

He was born November 24, 1940, in Omaha, Neb where he graduated from Creighton Prep High School in 1957, and received his medical degree from Creighton University Medical School in 1967. He married Mary Stevenson on September 22, 1962, in Omaha. Dr Bandiera completed an internship at Santa Clara County Hospital in San Jose, Calif in 1968, and then became a Navy flight surgeon at Key West, Fla until 1971. He completed an ophthalmology residency at the Cleveland Clinic in Cleveland, Ohio in 1974.

Dr Bandiera and his family returned to Omaha where he practiced ophthalmology until 1978. After returning to Cleveland, Ohio for continued schooling, he moved his family to Brookings and entered into a partnership at Yorkshire Eye Clinic in 1979.

Dr Bandiera was a member of the South Dakota State Medical Association and past president of the Third District Medical Society; chief of staff at Brookings Hospital; a member of St Thomas More Catholic Church, the American Academy of Ophthalmology and the Brookings Riding Club.

Survivors include his wife; five sons: Dan, Lincoln, Neb; Tom, Lafayette, Colo; Joe, Phoenix, Ariz; and Sam and Matt, both of Brookings; one daughter, Mrs John (Mary) Shay, Owatonna, Minn; one granddaughter; a step-brother, Joe Bandiera, Texas; two sisters: Mrs Norman (Ann) Uhing; and Mrs Patrick (Lucille) Daly, both of Omaha; and one step-sister, Mrs Joseph (Nancy) Nisi, Omaha.

Aberdeen physician, **Scott Berry, MD**, has been elected as a Fellow to the American College of Obstetricians and Gynecologists.

The University of South Dakota School of Medicine Department of Anatomy has established the Robert E. Van Demark Institute of Anatomical Research to honor more than four decades of volunteer service to the Medical School by **Dr Robert E. Van Demark, Sr.**

Dr Van Demark, a Sioux Falls orthopedic surgeon, has made a major contribution to the School of Medicine through his teaching. As a Clinical Professor of Anatomy, he puts in an unusual amount of time for which he is not paid. He gave his first lecture at the Medical School in the fall of 1947.

Dr Van Demark completed his bachelor of science degree at the University of South Dakota School of Medicine and his medical degree at Northwestern University Medical School. He completed his residency in orthopedic surgery at Northwestern. He served in the military in World War II as an orthopedic surgeon. After the war, Dr Van Demark came to Sioux Falls and joined his uncle, Dr Guy Van Demark in his orthopedic practice. Dr Robert took over the hand practice. He and his son, Robert E., Jr are the only two doctors in South Dakota who are board certified in hand surgery.

Dr Van Demark has been the recipient of many awards including: the University of South Dakota Alumni Achievement Award, the Medical School's Faculty Recognition Award, the Student American Medical Association's Golden Apple Award, the South Dakota State Medical Association's Distinguished Service Award and Community Service Award, the South Dakota Press Association's Distinguished Citizen of the Year Award and the Clinical Teaching Award from the Sioux Falls Family Practice Residency Program.

Lloyd Wagner, MD, has been installed as president of the College of American Pathologists for a two year term. Dr Wagner is a pathologist at McKennan Hospital in Sioux Falls.

Sioux Falls surgeon, **Robert E. Nelson, MD**, has been elected Governor-at-Large from South Dakota for the American College of Surgeons for a three year term. Dr Nelson practices at Central Plains Clinic.

Drs **Mark Belyea**, Huron; **Curtis Wait** and **Merritt Warren**, both of Brookings; **James Gaede**, Mitchell; **John McKichan**, Aberdeen; **Tom Dean**, Wessington Springs; and **Jerome Bentz**, Platte, have been recertified as diplomates of the American Board of Family Practice as a result of passing a recertification exam offered by the ABFP.

Timothy Zoellner, MD, Aberdeen, has completed the requirements to be board certified in orthopedic surgery by the American Board of Orthopedic Surgery

The University of South Dakota School of Medicine announced that **H. Bruce Vogt, MD** has been appointed Dean of Graduate Medical Education. Dr Vogt will oversee all four of the School of Medicine's residency programs: family practice, internal medicine, pathology, and psychiatry. Dr Vogt is a family practitioner in Sioux Falls.

The South Dakota Lung Association awarded its highest honor, the Agnes M. Holdridge Award, to **Rodney Parry, MD**. This award is given to those who have made a significant difference in lung health in South Dakota.

Dr Parry specializes in pulmonary disease and is associated with the University of South Dakota School of Medicine in Sioux Falls.

He has been a speaker for the family asthma program; worked for nonsmokers rights; helped implement no smoking policies at Sioux Valley Hospital and the VA Hospital; has served as Christmas Seal Chairman of the Lung Association; and has done many radio, TV and newspaper interviews about respiratory disease. He has made numerous public presentations on such topics as asthma, emphysema, tuberculosis, lung cancer, farmer's lung disease and pulmonary rehabilitation. He has been a member of the Board of Directors of the South Dakota Lung Association as well as its past president and committee member. Dr Parry and Evelyn Schlenker, PhD completed a research project on better protection methods for those involved in hog confinement operations, a study which received national recognition.

A native of Canistota, Dr Parry is a graduate of the University of South Dakota Medical School and the University of Wisconsin in Madison where he received his medical degree. He completed an internal medicine residency and a Fellowship in pulmonary diseases at the Mayo Clinic.

**YOUR CONTRIBUTION
IS NEEDED TO THE
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Auxiliary News



Karen Pekas, President, South Dakota State Medical Association Auxiliary

During these dark, dreary days of winter, we hear and read about cabin fever or the winter blahs. Some believe the weather with its dark, shorter days can trigger stress which scientific evidence shows is a problem for many of us. For example, 85% of Americans feel they need less stress in their lives according to a recent government study. Almost 75% of all patient visits to family physicians and internists are related to unrelieved stress. The American Medical Association Auxiliary under their banner of **MAKE GOOD HEALTH A HABIT--SHAPE UP FOR LIFE** has published a pamphlet on stress. Here are a few helpful hints on how we can use stress to lead us to new heights of achievement and self-fulfillment.

Learn to flow with problems you cannot solve. Most situations in life have no emotional content. It is what we make of them that counts. If something is perceived as a threat, and the problem itself isn't solvable, sit back,

relax, take a break, get some physical activity, or talk it over with a friend or colleague. Don't let things you can't resolve produce stress. Let that other person be first in line and have patience with that slower than normal driver!

Clarify your values. Decide what you really want out of life, set practical goals you can reach, and go after them. Success isn't trying to be something other than what you are. Enjoy being who you are!

Be a "cold reactor" not a "hot reactor". This one is tough for you as physicians. Only you can allow stress to bother you. So let the car next to you beat you away from the stop light. Let your friend or family member win the next argument. Put things into perspective and react accordingly.

Communicate with others. If something bothers you, talk about it. Don't bottle up emotions until you overreact. Tell people calmly what it is they do that annoys you in the office or at home. It will be better for you and nicer for those around you.

Eat right and exercise regularly. Stress can increase your nutritional needs since your body uses food faster. You need a well-balanced diet. Do not skip lunch! Regular exercise will help you relax, reduce stress, control weight and maintain good health.

Take time to smell the roses. Learn to relax. Mix into your daily routine some things you like to do. Make a few minutes of peace and quiet every day. Find some way each day to do what YOU like to do.

We live with stress all of the time. Happy occasions, sad occasions, or just everyday occasions can cause stress. Hans Selye, MD, a pioneer in the field of stress management, points out to us that the only real freedom from stress is death! We must find ways to make stress a motivator by making it work for us, and not against us.

Have a wonderful month!

A handwritten signature in cursive script that reads "Karen Pekas".

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Correspondence

Dakota CME Needs Assessment Survey

During the next few weeks, physicians in North Dakota and South Dakota will be receiving a questionnaire to help determine how they prefer to receive continuing medical education and topics they wish to have covered. This survey is one of the results of a closer working relationship between the Medical Schools of North and South Dakota, as requested by the states' governors slightly more than a year ago.

Work on the survey began with the drafting of a questionnaire by physicians from both states. Drafts were then field tested in both states. Though both Medical Schools will share in the distribution and collection of the completed questionnaire, analysis will be on a state-by-state basis with results available to local CME planners in both states.

This study is unique because of both its scale and the cooperation across state lines. As the planning for this project became known nationally, representatives from both Medical Schools were approached by the Alliance for Continuing Medical Education and asked to make a presentation at the group's annual meeting to discuss how the project was conceived and what it will accomplish.

Ultimately the success of this project depends upon YOU. We encourage you to take the 15-20 minutes required to complete and return the survey and look forward to your input. Won't you help yourself to more relevant CME in the future? #

Robert R. Raszkowski, MD, Ph.D
Dean, Continuing Medical Education
University of South Dakota School of Medicine
Clayton Jensen, MD
Associate Dean, Clinical Affairs
University of North Dakota School of Medicine

Sioux Falls Family Practice Residency Offers Thanks to Teaching Faculty

The SFFPR wishes to publicly thank the members of the medical staff of McKennan and Sioux Valley Hospitals and the University of South Dakota School of Medicine who participated in the training of our residents, for a job well done!

The Residency Program recently received the results of its annual Intraining Assessment Exam required of all family practice residents in the nation. The Sioux

Falls program, which provides three years of training for the specialty of family practice, is very happy to report that its residents have again received excellent scores. Results indicate the overall program average is in the top 33% nationally and no individual resident scored below the middle 33% of scores.

Exam results enable the residency program to compare to national standards: 1) individual resident scores, 2) scores by program year, and 3) overall program scores. Since the specialty of family medicine requires such a broad base of medical knowledge, scores are also reported for questions relating to internal medicine, surgery, obstetrics, community medicine, pediatrics, psychiatry, gerontology, gynecology, clinical problem solution, and an overall composite score. #

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Contact:

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Family Practice

Rural community, located in the heart of the Black Hills of South Dakota, is seeking a Board Certified Family Practice physician. Fully equipped clinic space available. Income guarantee provided. For more information contact:

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Administration
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1039 Montgomery Street
Custer, SD 57730
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South Dakota: Expanding physician-owned emergency group has opening for full-time career-oriented emergency physicians in Sioux Falls, Aberdeen and Yankton. Excellent benefits including malpractice, disability, health insurance, profit sharing, etc. Flexible work schedules, excellent working and living conditions.

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(307) 632-1436

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Cheyenne, WY
82003

Family Practice - Hospital Sponsored Clinic Opportunity

Dynamic, growth-oriented hospital in beautiful North Central Wisconsin is seeking TWO family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact:

Dan McCormick, President
Allen McCormick
France Place, Suite 920
3601 Minnesota Drive
Bloomington, MN 55435
(612) 835-5123

AMA Physicians' Recognition Award

AMA Physicians' Recognition Award Recipients

Congratulations to the physicians in South Dakota who have earned the AMA Physicians' Recognition Award in the months of June-December, 1989.

June

Warren N. Golliher, MD*
Alfred R. Hofmann, MD

Spearfish
Rapid City

Jorge H. Johnson, MD*
Henry Travers, MD*

Sioux Falls
Sioux Falls

July

Genaro L. Salazar, MD*

Vermillion

August

Jerome A. Eckrich, MD*
Neil S. Freund, MD

Aberdeen
Rosebud

Barry T. Pitt-Hart, MD*
M. Venugopal, MD*

Sioux Falls
Brookings

September

Harry C. Newman, MD*

Pine Ridge

Stephan D. Schroeder, MD*

Miller

October

Susan M. Ostrowski, MD*

Eureka

December

Bruce E. Ogden, MD*

Sioux Falls

George A. Richards, MD*

Sioux Falls

* members of the South Dakota State Medical Association

Student Health Service Physician

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For application information, contact
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New SDSMA Members

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Richard Barth, MD Central Plains Clinic 2727 S Kiwanis Ave Sioux Falls, SD	Endo/Met	K. Alan Mills, MD Sacred Heart Hospital 501 Summit Yankton, SD	Path	Paul A. Wojewski, MD 2929 Fifth St, Suite 150 Rapid City, SD	CS
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		Larry L. Wehrkamp, MD	S	John M. Schmitz 1926 S Cleveland Ave Sioux Falls, SD	Student
				Rick J. Wagner 801 Dakota, #30 Yankton, SD	Student
				Candace N. Ziegler 25 Prentis Vermillion, SD	Student

Future Meetings

March

4th Annual Management of Common Gastroenterological Problems, U of Kans Med Ctr, Kansas City, KS, Mar 14. Fee: none. 3.75 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow and Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

Family Practice Today, Holiday Inn East, St. Paul, MN, Mar 15-16. Fee: \$220. 13.5 hrs AAFP & AMA Category I credit. Contact: Kathleen Fritz, Registrar, CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Quality Assurance in Hospice Care-Demonstrating Clinical Excellence, Holiday Inn Golden Gateway, San Francisco, CA, Mar 16. Fee: \$305. 10 hrs CME credit. Contact: JCAHO, 875 N Michigan Ave, Chicago, IL 60611. Phone: (312) 649-8100.

Internal Medicine Update Conference, Golden Hills Inn, Lead, SD, Mar 17-18. Fee: \$40. 8 hrs AMA Category I credit. Contact: Brian Hurley, MD, USD School of Med, PO Box 5046, Sioux Falls, SD 57117-5046 for registration forms. Phone: (605) 339-6790.

Annual Pediatric Postgraduate Symposium, U of Kans Med Ctr, Mar 29-30. Fee: TBA. AMA Category I credit: TBA. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

April

Advances in Ophthalmology, 1990, Embassy Suites Hotel, Kansas City, MO, Apr 5-7. Fee: \$260. 11.5 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

15th Annual Family Practice Symposium, Ritz-Carlton Hotel, Kansas City, MO, Apr 18-19. Fee: \$175. 14 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

Life-Style Symposium: Prescribing for and Obtaining Compliance from Your High Cardiovascular Risk Patients with Dyslipidemia, Westin Crown Ctr Hotel, Apr 27-28. Fee: \$40. 8 hrs AMA Category I credit. Contact: Bernice Jackson, U

of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

May

Rural Health! Empowered to Make a Difference, 13th Annual National Conference, New Orleans, LA, May 16-19. Contact: Nat'l Rural Hlth Assoc, 301 E Armour Blvd, Suite 420, Kansas City, MO 64111. Phone: (816) 756-3140.

Kansas Medicine: Ten Years Later, Hyatt Regency Hotel, May 18. Fee: TBA. AMA Category I credits: TBA. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypertension. Excessive hypertension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypertension usually is not necessary when dosing instructions are followed. Caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypertension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypertension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypertension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypertension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis. Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: General. Impaired Renal Function. As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia. Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia. In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema. Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of the face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension. Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia. Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia. Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypertension. Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release. The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents. VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nifedipine, calcium-channel blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium. VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, furosemide, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium. Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C. There was no teratogenicity or fetotoxicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur with lower doses. Animals were supplemented with saline enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that

show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Diglycidylamines in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers. Milk in lactating rats contains radioactivity following administration of 14 C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use. Safety and effectiveness in children have not been established.

Adverse Reactions. VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION. The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE. The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis, stomatitis.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Herpes zoster, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity rash and other dermatologic manifestations.

Angioedema. Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension. In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes. Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen. In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, usually reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 12% of patients.

Hemoglobin and Hematocrit. Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/dL and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown). In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests. Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: Hypertension. In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

Dosage Adjustment in Hypertensive Patients with Renal Impairment. The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance <30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure. VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia. In patients with heart failure who have hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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Elevated Thyroxine and Free Thyroxine in Euthyroid Patients: Familial Dysalbuminemic Hyperthyroxinemia

Steve Haas, MD¹

ABSTRACT

An eleven year old male was evaluated because of persistent elevation of thyroxine levels and elevated thyroxine index calculated as "T7" but normal thyrotropin levels. The findings were demonstrated by thyroxine binding protein electrophoresis to be due to aberrant thyroxine binding to albumin. The abnormality was also documented in the patient's father. This entity, known as familial dysalbuminemic hyperthyroxinemia, is being reported with increasing frequency and should be suspected when elevated total thyroxine and free thyroxine or "T7" levels are associated with a normal thyrotropin level.

The case reported is somewhat unusual in that the triiodothyronine affinity of the aberrant protein appears to be more pronounced than usually reported with this syndrome and the corresponding total triiodothyronine level was significantly elevated.

The most common cause of increased total thyroxine (T4) levels in euthyroid patients is acquired increased thyroxine binding globulin (TBG) levels associated with increased endogenous or exogenous estrogen. This, as well as the rare X-linked congenital increase in TBG levels, can be detected by correcting for increased binding sites using the T3 resin uptake and calculating a "T7" (most commonly by simply multiplying the T4 value by the percent T3 resin uptake) or by using various commercially available "free T4" kits. In 1979, however, two separate reports^{1,2} of families with elevated T4 and free T4 indices, due to aberrant binding of thyroxine to albumin, were published. By the time of Borst's review³ just three years later, eighteen families and fifty-eight patients with this syndrome had been reported. Termed "familial dysalbuminemic hyperthyroxinemia" (FDH), this entity is inherited as an autosomal dominant and may be one of the most common causes of consistently elevated T4 and "free T4" values in patients with normal thyrotropin (TSH) levels.^{4,5}

CASE REPORT

An eleven year old male was referred for evaluation of elevated T4 and T7 determinations. Evaluation for

hypothyroidism had been prompted by excessive weight and reported lethargy. T4 was 22.6 (normal 4.4-12.5), T3 resin uptake 23% (normal 22-35%) and calculated T7 was 5.2 (normal 1.0-4.4). Physical examination revealed exogenous obesity with no evidence of goiter or clinical hyperthyroidism. A paternal grandfather had undergone surgery for a colloid nodule of the thyroid 15 years earlier. A maternal grandmother reportedly had Grave's disease. The patient had received no drugs or medications.

Repeated T4 and T7 determinations and a total triiodothyronine (T3 RIA) level were elevated, but TSH was consistently measurable. Partial suppression of T4 and suppression of TSH with exogenous triiodothyronine (75 mcg/day for ten days) was documented (Table I).

Investigation of family members revealed an elevated T4 level in the patient's father. Records from the paternal grandfather's evaluation 15 years earlier indicated a normal T4 of 10.0. Electrophoresis of thyroxine binding proteins confirmed the diagnosis of familial dysalbuminemic hyperthyroxinemia in the proband and his father (Table II).

MATERIAL AND METHODS

Thyroxine determinations were performed by radioimmunoassay with Abbott triobead kits. TSH was measured by a sensitive radioimmunoassay (Bio-Rad echoclonal). T3 RIA was determined by radioim-

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Table I					
	Date	Mcg% T4 T3u		miu/ml TSH	ng% T3 RIA
Patient	6/28/88	22.6	23%	5.2	
	8/11	19.2	27.8	5.3	1.64
	8/24				275
T3 supp.	10/31*	10.8*		<0.05*	
	11/18	15.1	27.6	4.2	3.37
Mother	11/18	8.7			
Father	11/18	14.1			
normal ranges T4 (4.7-12.5) T3u (22-35%) T3 RIA (90-200) TSH (0.23-5.41)					
*after 10 day's triiodothyronine 75 mcg/day					

Table II				
	Thyroxine Binding Protein Electrophoresis			
	TBG	albumin	prealbumin	T4
normal range	10.3-24.9	11.5-34.1	48.8-70.4	5.0-12.5
(mcg%)				
patient	19.0	45.8	35.1*	19.7
father	14.1	49.9	35.9	14.7
*The high affinity of albumin for the added tracer in FHD results in comparatively less remaining labeled T4 available for the low affinity prealbumin binding sites.				

munoassay by North Central Labs, Minneapolis, Minnesota. Electrophoresis of thyroxine binding proteins was performed on polyacrylamide gel by Mayo Clinic Laboratories as described by Klee and Hay.⁶

DISCUSSION

Thyroid hormone is more than 99.9% bound to the carrier proteins TBG, thyroxine binding prealbumin (TBPA), and albumin. Aberrations in these proteins are reflected in the total T4 values measured, although only free hormone is metabolically active. Free thyroxine levels can be measured by the cumbersome and time consuming technique of equilibrium dialysis but are more commonly measured by using a labeled triiodothyronine tracer to estimate unoccupied binding sites (T3 uptake) with calculation of an index of free thyroxine such as the "T7". Such techniques work well as long as the binding of T3 remains proportional to T4 binding as occurs with elevated TBG levels. When the affinity of the excess T4 binding sites for the T3 label is disproportionately lower, however, the estimate of unoccupied binding sites for T4 by this method is erroneous. Since the affinity of TBPA for T3 is almost non-existent and the affinity of albumin for T3 is much less than for T4, the T3 uptake remains normal when excess T4 is bound to these proteins. The result is an increase in the calculated "T7" index.

Commercial kits for free T4 measurement using analogs of T4, which do not bind to the usual carrier proteins, have been developed to avoid the confounding effects of the carrier proteins. Unfortunately, the abnormal albumin binding sites associated with FDH do bind to these analogs. The results of such "one-step" free T4 methods are also elevated.⁶⁻⁸

The elevation of the T3 RIA level in this case is somewhat unusual. Although normal in many of the families reported,^{2,3,5,9,10} it was modestly elevated in other families.^{1,5} The degree of elevation of the T3 RIA in this case is greater than in most previous reports. This is apparently the result of some T3 binding to the aberrant albumin sites and is also reflected in the low normal range T3 uptake values. The affinity for T3 was disproportionately lower than for T4, however, and the resultant T7 remains elevated. Yabu, et al⁸ have identified at least four different T4 binding sites on albumin in FDH, and it is likely that quantitative or qualitative variations in these sites are present in different families.

With the development of more sensitive TSH assays, detection of FDH should increase. Except in cases of rare TSH secreting pituitary tumors, all causes of thyrotoxicosis should have a suppressed TSH. The finding of a normal TSH level with elevated total and free T4 and "T7" levels in a euthyroid patient should raise a high index of suspicion for FDH. Rare cases of peripheral resistance to thyroid hormone may present a similar picture although most of the cases reported with this entity have had goiters.¹¹⁻¹³

The diagnosis of FDH is indicated by normal free T4 levels by equilibrium dialysis and can be more specifically confirmed by thyroxine binding protein electrophoresis. The pattern demonstrated in Table II with normal TBG binding, increased binding to the high volume albumin sites and secondary decrease in binding to the lower affinity pre-albumin sites is characteristic only of FDH.

Although FDH itself is harmless, the mistaken diagnosis of thyrotoxicosis may not be. Borst³ listed 18 references reporting euthyroid elevations of thyroxine which included cases inadvertently treated. Ablative thyroid treatment, as well as antithyroid drugs, have been used.^{1,3,4} Furthermore, if treatment or subsequent thyroxine replacement is monitored by T4 levels rather than by TSH suppression, dosages may be inappropriate^{1,4,10,14} and prolonged hypothyroidism may occur.

REFERENCES

1. Lee WP, Golden MP, Van Herle AJ, et al: Inherited abnormal thyroid hormone-binding protein causing selective increase of total serum thyroxine. *J Clin Endocrinol Metab* 1979;49:292-299.
2. Henneman G, Docter R, Krenning EP, et al: Raised total thyroxine and free thyroxine index but normal free thyroxine: a serum abnormality due to inherited increased

affinity of iodothyronines for serum binding protein. *Lancet* 1979;1:639-642.

3. Borst GC, Eil C, Burman KD: Euthyroid hyperthyroxinemia. *Ann Int Med* 1983;98:366-378.

4. Jackson JA, Verdonk CA, Spiekerman M: Euthyroid hyperthyroxinemia and inappropriate secretion of thyrotropin: recognition and diagnosis. *Arch Int Med* 1987;147:1311-1313.

5. Ruiz M, Rajatanavin R, Young RA, et al: Familial dysalbuminemic hyperthyroxinemia: a syndrome that can be confused with thyrotoxicosis. *N Engl J Med* 1982;306:635-639.

6. Hay ID, Klee GG: Thyroid dysfunction. *Endocrinol Metab Clin N Amer* 1988;17:473-509.

7. Rajatanavin R, Fournier L, DeCosimo D, et al: Elevated serum free thyroxine by thyroxine analog radioimmunoassays in euthyroid patients with familial dysalbuminemic hyperthyroxinemia. *Ann Int Med* 1982;97:865-866.

8. Yabu Y, Amir SM, Ruiz M, et al: Heterogeneity of thyroxine binding of serum albumin in normal subjects and patients with familial dysalbuminemic hyperthyroxinemia. *J Clin Endocrinol Metab* 1985;60:451-459.

9. Maxon HR: Euthyroid familial hyperthyroxinemia (let-ters). *N Engl J Med* 1980;302:1263.

10. Borst GC, Premachandra BN, Burman KD, et al: Euthyroid familial hyperthyroxinemia due to abnormal thyroid-binding protein. *Amer J Med* 1982;73:283-289.

11. Hopwood NJ, Sauder SE, Shapiro B, et al: Familial partial peripheral and pituitary resistance to thyroid hormone: A frequently missed diagnosis? *Pediatrics* 1986;78:1114-1122.

12. Gharib H, Klee GG: Familial euthyroid hyperthyroxinemia secondary to pituitary and peripheral resistance to thyroid hormones. *Mayo Clin Proc* 1985;60:9-15.

13. Smallridge RC, Parker RA, Wiggs EA, et al: Thyroid hormone resistance in a large kindred: Physiologic, biochemical, pharmacologic and neurophysiologic studies. *Amer J Med* 1989;86:289-296.

14. Young RA, Stoffer SS, Braverman LE: Familial dysalbuminemic hyperthyroxinemia associated with primary thyroid disease. *Amer J Med* 1987;82:221-223.

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Documentation concerns were initially identified in the first months of review. These problems were ascribed to unawareness of the HCFA generic screens and to variation of documentation requirements among ambulatory surgery facilities.

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Recording the following items, where appropriate, may facilitate complete ambulatory surgery recordkeeping.

	<u>Section</u>	<u>Be Sure to Include</u>
PREOP	History	Indications for procedure; Allergies; Significant past medical history; Chronic medications; Informed consent considerations
	Physical	Vital signs (usually provided by the facility); General condition; Heart and lung examination; Other examination pertinent to the procedure
	Lab and X-ray	Testing according to facility ambulatory care standards and appropriate to procedure; All results normal or addressed
	Anesthesia	Anesthesia risk consideration and anesthesia planned (may be included in operative note)
	Indication	Summary statement about why you believe it is appropriate to do this procedure in an outpatient setting (may be included in dictated operative note)
OP NOTE	Surgical report	Surgeon(s); Anesthesia administrator(s); Anesthesia used; Description of indications, findings, and procedure (may include discharge notes with OP note)
POST OP	Discharge	Any recovery period problems; Statement of medical stability including vital signs (usually provided by the facility); To whom released and care arrangements; Instructions, e.g., medications, follow-up visits; Documentation of transfer to another care setting, when appropriate

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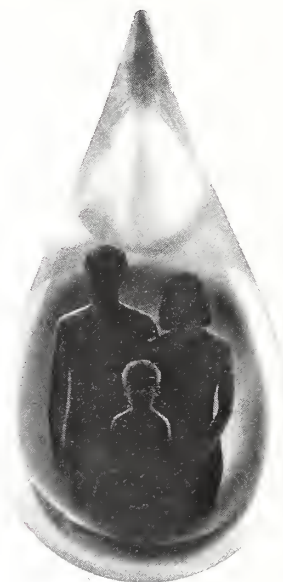
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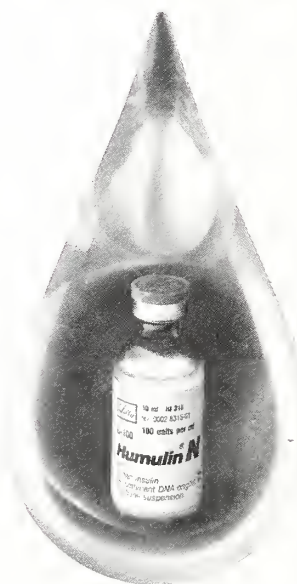
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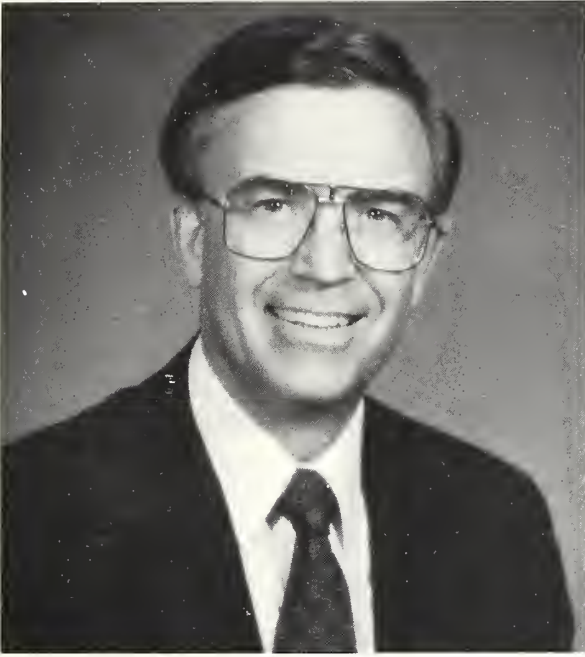
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Leadership
In Diabetes Care

President's Page



Michael W. Pekas, MD, President, South Dakota State Medical Association

The Media, Turning A Negative Into A Positive

For the past decade or more, medicine has been generally portrayed by the media both locally and nationally in a negative manner. Whether or not this is a result of a concerted hidden agenda on the part of the media or the media's general attitude that bad news is good news is anybody's guess. However, the results are the same. Even though attempts both ongoing and in the past have and are being made to continually inform the media of the good things that medicine is accomplishing, it seems that there is little interest on the part of the media to portray medicine in this light.

Public relation efforts on the part of the Medical Association as a part of strategic long range planning has been discussed in the past on several occasions. Our decision in the past has always been to attempt to work closely with the media in developing more positive attitudes toward organized medicine and its goals and achievements, but aside from running some public service announcements and a few prepared press releases, nothing much of value has occurred. We do have a lot of good things to talk about, our concerns surrounding the increased cost in health care and some of the possible ways these increases could be slowed down, our concerns surrounding the millions of health uninsured in this country and possible remedies to help solve that

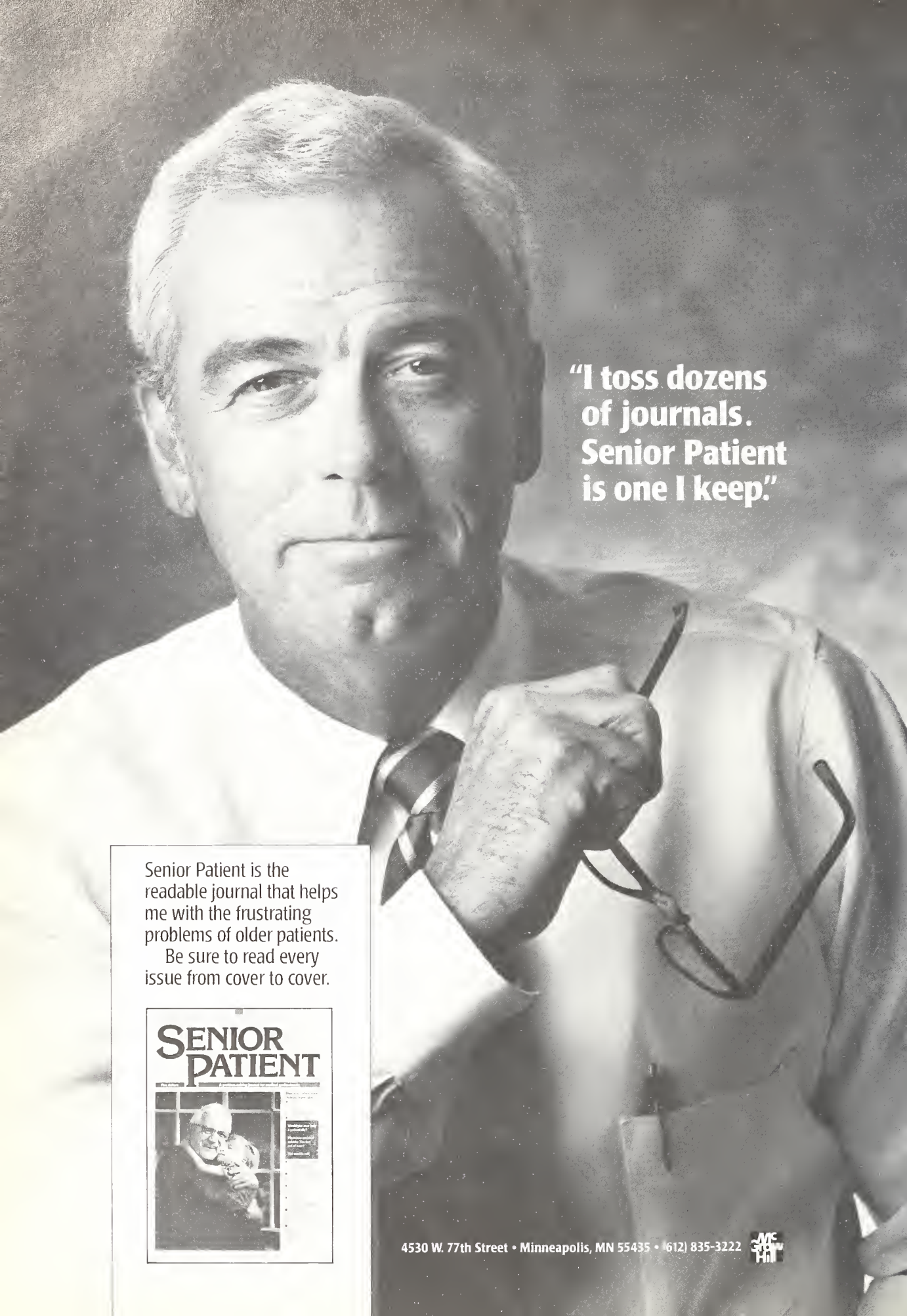
problem, our concerns about maintaining our health care system with the patient's ability to exercise free choice in his selection of physician and treatment and to guarantee open access to that health care system.

It seems that the only way that the Medical Association is going to be able to insure a media forum in which these topics can be discussed is to go out and purchase the time or the ad space directly. This, of course, would have to be done in the proper way, working with an outside agency, testing different ad concepts which would best put forth our message. We would probably end up utilizing both printed ads as well as spots on the electronic media at appropriate times for maximum impact and consumption. This would all, of course, cost a fair amount of money.

We are yet unaware of what the financial impact would be upon the State Association but would, of course, know the numbers before presenting any type of campaign program to the membership. It very well could require additional funding from the membership in the form of increased dues in order to properly promulgate this type of media campaign.

Although a well financed advertising campaign has not yet been launched in the state of South Dakota, other state medical associations have successfully embarked on this type of purchased advertising program and have done quite well with it, most recently the Massachusetts Medical Society. I know that purchasing ads to promote organized medicine to some of you may seem repugnant. The fact is that I am afraid that is the only way we are going to get our message across. Please let me know how you feel either by writing me or Mr. Robert Johnson a note letting us know how you would feel about such a proposed project. #

A handwritten signature in dark ink, appearing to read "M. Pekas". The signature is fluid and cursive, with a large loop at the beginning.

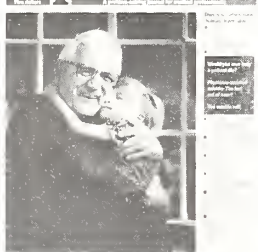


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Utilization of Masks by Hutterite Farmers

Evelyn H. Schlenker, Ph.D.¹

Rodney R. Parry, MD²

ABSTRACT

Respiratory symptomatology and pulmonary function tests were evaluated among 199 male Hutterites who utilized masks during farming and 159 Hutterites who did not use masks. Anthropometric and pulmonary function tests were comparable between the two groups. Symptomatology, including cough, phlegm, and wheezing were more prevalent among mask wearers compared to non-mask wearers. The prevalence of hayfever ($p < 0.02$) and asthma ($p < 0.001$) was greater among mask wearers vs non-mask wearers. Although the types and percent of individuals from each group raising crops and livestock were comparable, breathlessness, wheeze and fever were more common among the mask wearers. Thus farmers who suffered a higher incidence of symptoms as a consequence of farming are more likely to use masks.

INTRODUCTION

Farming environments, especially in confinement barns and grain bins are extremely dusty. These dusts include endotoxins, fungal spores, grain particles, animal proteins (urine, dander, serum), pollen, grain mites and insect parts.¹⁻⁴ Respiratory disease and symptomatology of individuals exposed to these agents may include organic dust toxic syndrome, hyperactive airway, cough, hypersensitivity pneumonitis, and breathlessness.^{5,6} Means of dust control within confinement barns include adequate ventilation of buildings, evaluation of dust levels and setting threshold limit values for these "dust" constituents. Personal protection can be utilized in the form of respirators, filters, helmet masks and dust masks.^{1,7,8} However, knowledge of the appropriate type of mask to be used, the level of comfort associated with mask use, the amount of protection available to the subject who uses a mask and why masks are or are not utilized have not been thoroughly studied.

In this epidemiological study, questionnaires and pulmonary function tests were used to evaluate mask

use in male Hutterite agricultural workers. The Hutterites are a unique group of individuals who live in large communal colonies.⁹ They settled in the United States in the 1870's and have as a major occupation farming. Unlike the Amish, the Hutterites use ultra modern farming techniques including confinement housing of livestock and large grain bins, both of which generate high levels of particulate matter.¹⁰ Generally, they mill their own feed. In addition, smoking is highly discouraged. Also, few if any, males leave the colony on which they were born, eliminating to a large extent the healthy worker effect.

METHODS

Approximately 370 male Hutterites involved in agricultural work participated in this study; compliance rates were 95%. Subjects first signed a consent form approved by the Human Experimentation Committee at the University of South Dakota. All studies were conducted at the colonies. The American Thoracic Society Questionnaire for Epidemiological Study was used to evaluate respiratory history and symptomatology.¹¹ Questions regarding use of masks, farming practices, and symptomatology associated with raising crops and livestock were administered by trained Hutterite interviewers. According to the responses to the mask use questions, the subjects were divided into two groups, one group consisted of those who used masks (mask

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wearers) during farming and the other one those who did not (non-mask wearers).

Pulmonary function tests consisted of forced expiratory and inspiratory maneuvers performed on a Medical Graphics Corporation Computerized spirometry system. Each individual performed at least three satisfactory procedures. The sum of the best forced vital capacity (FVC) and forced expiratory volume in one second (FEV 1.0) was used to calculate results. The prediction equations of Knudson and co-workers¹² were used to determine the percent predicted function values.

Statistical analysis included G test, correlation analysis, Chi square, and unpaired Student's t test (to compare anthropomorphic and pulmonary function test data). Significance was accepted at less than 0.05.¹³

RESULTS

Anthropomorphic characteristics of each group indicate no difference in age, weight or height (Table I). Likewise, no difference of pulmonary function test results (percent predicted) were found (Table II).

Significantly higher prevalences of usual cough, phlegm production, wheezing during a cold and apart from colds were noted in the individuals who wore masks compared to those individuals (Table III) who did not wear masks. Mask wearers also had higher prevalence rates of asthma and hay fever compared to non-mask wearers (Table IV).

Table I		
Anthropomorphic characteristics of mask and non-mask wearers (Mean ± SD)		
	Mask Wearers (N=199)	Non-Mask Wearers (N=159)
Age (years)	34.4 ± 14.3	33.2 ± 16.4
Weight (kg)	80.7 ± 16.1	80.0 ± 17.3
Height (m)	1.75 ± 0.08	1.74 ± 0.08

Table II		
Percent predicted pulmonary function tests of males using masks and those not using masks		
	Mask Wearers (N=177)	Non-Mask Wearers (N=151)
Predicted - Forced Vital Capacity	89.7 ± 12.4	89.3 ± 10.8
Predicted - Forced Expiratory Flow rate in 1 second	97.1 ± 14.0	95.4 ± 14.3
Predicted $\frac{FEV_1}{FVC}$	107.9 ± 8.0	108.0 ± 7.6
Predicted Forced Expiratory Flow Rate between 25 and 75% of FVC	87.5 ± 23.3	85.4 ± 23.5

Respiratory symptomatology associated with raising crops and livestock is presented in Table V. Individuals who used masks had a significantly higher prevalence of symptomatology in general associated with raising

Table III		
The prevalence of respiratory symptomatology of mask and non-mask wearers		
Questions pertaining to symptoms	Mask Wearers	Non-Mask Wearers
Do you usually cough?	37/208 17.8%	17/74 9.8%
	$p < 0.05$	
Do you usually cough as much as 4-6 times per day?	33/152 21.7	21/140 14.3
	NS	
Do you usually bring up phlegm from your chest?	59/210 28.1	30/177 16.9
	$p < 0.01$	
Do you wheeze when you have a cold?	57/205 27.8	31/170 18.2
	$p < 0.05$	
Occasionally apart from colds?	30/205 14.6	11/165 6.7
	$p < 0.02$	
Are you troubled by breathlessness when hurrying on a level or walking up a slight hill?	32/204 15.7	20/173 11.6
	NS	

Table IV		
Prevalence of respiratory diseases of mask and non-mask wearers		
Disease Categories	Mask Wearers	Non-Mask Wearers
If you have a cold does it go to your chest?	56/210 26.7	39/176 22.2%
	NS	
Lung Problems before 16?	21/209 10.0	10/177 5.6
	NS	
Bronchitis	23/206 11.2	10/172 5.8
	NS	
Pneumonia	23/194 11.9	20/167 12.0
	NS	
Hayfever	27/192 14.1	10/161 6.2
	$p < 0.02$	
Chronic Bronchitis	8/186 4.3	7/159 4.4
	NS	
Emphysema	0	1/161 6.2
	NS	
Asthma	20/193 10.4	4/176 2.4
	$p < 0.001$	
Sinus	51/196 26.0	32/165 19.4
	NS	

Table V

Prevalence of symptoms associated with raising crops or livestock

	<u>Crops</u>		<u>Livestock</u>	
	Mask Wearers	Non-Mask Wearers	Mask Wearers	Non-Mask Wearers
#raising	190	133	185	144
#symptoms	71 (37.4)	35 (26.3)*	68 (36.8)	31 (21.5)*
Nose irritation	32 (16.8)	18 (13.5)	19 (10.3)	10 (6.9)
Breathlessness	14 (7.4)	3 (2.3)*	23 (12.4)	3 (2.1)**
Headache	14 (7.4)	14 (10.5)	15 (8.1)	13 (9.0)
Cough	27 (14.2)	10 (7.5)	34 (18.4)	18 (12.5)
Skin itch	29 (15.3)	10 (7.5)*	8 (4.3)	3 (2.1)
Wheezing	14 (7.4)	5 (3.8)	29 (15.7)	6 (4.1)**
Eye irritation	44 (23.2)	21 (15.8)	20 (10.8)	5 (3.5)
Fever	7 (3.7)	3 (2.3)	35 (18.9)	10 (6.9)**
Sore throat	10 (5.3)	5 (3.9)	15 (8.1)	7 (4.9)
Fatigue	8 (4.2)	3 (2.5)	9 (4.9)	4 (2.8)

Numbers in parenthesis indicate prevalence rates in%.
Numbers outside the parenthesis indicate the actual numbers of individuals having a particular symptom.

* $p < 0.05$ Comparing mask to non-mask users

** $p < 0.01$

Table VI

Types of animals raised by mask and non-mask wearers

	Mask Wearers (N=185)	Non-Mask Wearers (N=144)
Dairy cattle	119 64.3%	79 54.9%
Beef cattle	90 48.6%	60 41.7%
Sheep	43 23.2%	38 26.4%
Hogs	113 61.1%	86 59.7%
Feeder pigs	101 54.6%	77 53.5%
Chickens	103 55.7%	91 63.2%
Ducks	74 40.0%	66 45.8%
Geese	76 41.1%	64 44.4%
Turkeys	128 69.2%	85 59.0%

crops ($p < 0.05$) and livestock ($p < 0.02$) than did individuals who did not wear masks. Specific symptoms such as nose irritation, skin itch and eye irritation, were more commonly associated with raising crops than with raising livestock. In contrast, the prevalence of cough and breathlessness was higher in individuals who raised livestock. Mask wearers had a higher prevalence of breathlessness (associated both with crops and livestock raising) than did non-mask wearers. Additional symptoms that were higher in mask wearers who raised crops were cough and skin itch, and livestock associated symptoms were wheezing and fever. Tables VI and VII represent the types of livestock and crops that were raised by individuals in each group. The percentage of individuals raising specific crops and livestock was

similar for each group. Generally turkeys, hogs and feeder pigs were raised in confinement (92%).

The types of masks that were utilized and activities for which the masks were used are shown in Table VIII. Most individuals used cloth masks for raising livestock. Only 2.1% of mask wearers used masks in confinement barns, although "dusty environments" may include barns. About 57% of the individuals who wore masks did so the entire time, 39.1% most of the time and only 4.6% at the beginning of a task.

Reasons given by individuals for not using masks included "don't have one", "can't stand one", "don't need one". Thus about one-half of the individuals that we studied didn't feel that using a face mask while farming was appropriate.

Table VII

Percent of different crops raised by mask and non-mask wearers

	Mask Wearers (N=190)	Non-Mask Wearers (N=133)
Corn	185 97.4%	129 97.0%
Soybeans	129 67.9%	88 66.2%
Oats	165 86.8%	118 88.7%
Alfalfa	170 89.5%	116 85.0%
Hay	162 85.3%	113 85.4%
Millet	117 61.6%	75 56.4%
Sorghum	129 67.9%	100 75.2%
Barley	171 90.0%	114 85.7%
Wheat	143 76.3%	100 75.2%
Orchard	35 18.4%	24 18.1%
Rye	82 43.2%	60 45.1%

Table VIII

Types of mask and activities for which masks were used

<u>Types of masks utilized</u>	<u>% used</u>
3-M Dustmask	9.4
Gas mask	2.2
Cloth mask	67.8
Charcoal filter mask	1.0
Respirator mask	0.6
Helmet mask	0.6
Chemical mask	2.2
Other	16.1
<u>Activities for which a mask was used</u>	<u>%</u>
*Loading livestock	48.9
Painting and carpentry	10.6
In confinement barns	2.1
Shoveling grain and cleaning out grain bins	15.9
In dusty environments	9.5
**Other	13.1

*generally turkeys and hogs

**using chemicals, installing insulation, etc

DISCUSSION

In this study approximately 50% of the population surveyed used masks during the execution of farming tasks. Compared to studies by Virolainen and co-workers in Finland¹⁴ in which they studied approximately 12,000 farmers, 24.6% purchased respiratory protection devices. Of the men 49 and younger, 48% used masks in livestock and grain production; a number comparable to our findings. In a followup study conducted in one group that had received occupational health instruction and another group that had not, the investigators found a significantly higher number of new dust respirator purchases in the former (24.8%) vs the latter group (16.0% $p < 0.0001$).

In addition, Virolainen and co-workers¹⁴ concluded that those farmers who developed chronic bronchitis or farmer's lung disease purchased dust respirators more often than those who remained healthy. In the present study also, mask wearers tended to have an increased prevalence of symptomatology and respiratory disease than did non-mask wearers.

Donham reported that 23% of swine confinement workers used respiratory protective devices even though many experienced respiratory symptoms associated with working in confinement barns.⁴

The use of personal respiratory devices in farming comes in many types from "dust masks" to self-containing respirator helmets. The latter have been used therapeutically to treat farmers who suffer from occupational asthma or farmer's lung disease.

In a two-year longitudinal study of 17 subjects with farmer's lung disease, Nuutinen and co-workers¹⁵ found that respiratory function and symptomatology could be maintained in almost all individuals. Each subject was well instructed about respirator use and maintained a daily diary in which was recorded the tasks during which they used the respirator, when they changed filters, inconveniences associated with respirator use and occurrence of symptoms. Both pulmonary function tests and evaluation of concentrations of airborne molds were periodically sampled. Problems associated with respirator use included formation of white frost within the visor during the winter time, a sensation of draft on the neck was reported as well as tension or pain in the necks and shoulders.

The effectiveness of dust respirators as preventive measures against farmer's lung disease (FLD) was studied over a two-year period by Ogasawara and co-workers¹⁶ in 21 patients. Like Nuutinen and associates,¹⁵ they found that respirator use was extremely practical and resulted in no recurrent episodes. Furthermore, they subjected patients to environmental provocation and confirmed that decrements of pulmonary function and symptomatology associated with FLD occurred in most patients.

In our study, as in others cited, a proportion of the farmers did not utilize masks. There are many psychological and physiological reasons for "healthy" individuals not to use masks.^{17,18} These include psychological perception of masks as being "unmanly", laziness, lack of education, and thermal, respiratory, and visual discomfort associated with mask use.

Louhevaara¹⁸ studied the major factors that could be responsible for the respiratory discomfort associated with using several types of respiratory protective devices. He concluded that masks offer additional breathing resistance (which would be further increased if filters become dust laden), alterations of breathing patterns, increased deadspace (possibly resulting in CO₂ retention), and increased weight. During heavy work, increased ventilatory demands were found to accentuate these problems.

Thus mask use, although found to be somewhat effective in controlling respiratory hazards has a number of drawbacks. Strategies of controlling dusty exposure in confinement houses needs to include adequate ventilatory controls, prevention of microbial growth and education about newer techniques.^{1,2,7,8} In addition, threshold limiting values for dust, gases, microbes, and endotoxins in swine confinement houses have been suggested to be lowered by Donham and co-workers.² A combination of improved environmental education and personal hygiene (including use of masks) may reduce morbidity of both already compromised and healthy farmers.

ACKNOWLEDGEMENTS

We want to thank Bonnie Terry for typing the manuscript. This research was supported by the American Lung Association.

REFERENCES

1. DeBoer S, Morrison WD: The effects of the quality of the environment in livestock buildings on the productivity of swine and the safety of humans. A literature review. Univ of Guelph, Guelph, Ontario 1988.
2. Donham KJ, Haglund P, Peterson Y, et al: Environmental and health studies of workers in Swedish swine confinement buildings. *Br J Ind Med* 1988 (in press).
3. Lenhart SW, Olenchok SA: Sources of respiratory insult in the poultry processing industry. *Am J Indust Med* 1984;6:89-96.
4. Donham KJ, Rubine M, Shedell TD, et al: Potential health hazards to agricultural workers in confinement buildings. *J Occup Med* 1977;19:383-387.
5. Rylander R: Lung diseases caused by organic dusts in the farm environment. *Am J Ind Med* 1986;10:221-227.
6. Merchant JA: Agricultural exposures to organic dusts. *Occup Med* 1987;2:409-425.
7. Clark S: Report on prevention and control. *Am J Ind Med* 1986;10:267-273.
8. Watson RD: Prevention of dust exposure. *Am J Ind Med* 1986;10:229-243.

9. Riley M: The Hutterites and their agriculture-100 years in South Dakota. SDSU, Brookings, SD 1974;3-23.
10. Schlenker EH, Parry RR, Hellickson MA: Respiratory characteristics of poultry laborers. Latest developments in livestock housing. Am Society of Agricultural Engineers 1987;127-136.
11. Ferris B: Epidemiology standardization project. Am Rev Respir Dis 1978;118:7-52.
12. Knudson RJ, Slatin RC, Lebowitz MD, et al: The maximal expiratory flow-volume curve. Normal standards, variability, and effects of age. Am Rev Respir Dis 1976;115:587-600.
13. Sokal RR, Rohlf FJ: Biometry. San Francisco, WH Freeman and Co, 1969.
14. Viroleinen R, Tupi K, Terho EO, et al: Characteristics of farmers who have obtained personal dust respirators. Eur J Respir Dis [Suppl] 1987;152:199-205.
15. Nuutinen J, Terho EO, Husman K, et al: Protective value of powered dust respirator helmet for farmers with farmer's lung. Eur J Respir Dis [Suppl] 1987;152:212-220.
16. Ogasawara H, Homa Y, Kusaka H, et al: Two-year follow-up of the protective value of dust respirators against farmer's lung. Am Rev Resp Dis 1987;135:A 236.
17. Morgan WP: Psychological problems associated with the wearing of industrial respirators: A review. Am Ind Hyg Assoc J 1983;44:671-676.
18. Louhevaara VA: Physiologic effects associated with the use of respiratory protective devices. Scand J Work Environ Health 1984;10:275-281.

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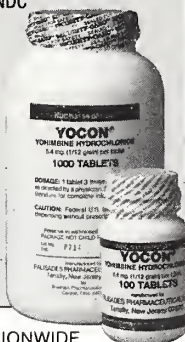
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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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National Poison Prevention Week

March 18-24, 1990 marks the 29th annual observance of National Poison Prevention Week (NPPW). NPPW is intended to alert the public and health care community to the problem of unintentional poisoning that results in unanticipated illness or death.

The traditional goal of NPPW is prevention of poisoning among children. Childhood poisoning has been declining as a cause of injury-related emergency department visits, hospitalizations and death since the mid-1960's. This reduction is attributed to a model approach to poison prevention using aggressive education, legislation and service.

Poison Control Centers have contributed considerably to the educational and service components of the poison prevention model.

This year the McKennan Poison Control Network calls attention to unintentional poisoning fatalities among adolescents and young adults, including poisonings from both the medical and non-medical use of drugs. A seven-year national trend analysis shows a 49% increase in the rate of deaths from drug poisoning. The leading causes of fatal unintentional drug poisonings were opiate narcotics, cocaine and ethanol during this time frame. In stark contrast is a decline of greater than 75% of aspirin ingestion-related death and illness in children since 1970.

Initiation of drug use during adolescence is an important risk factor for later hazardous use. This suggests that deferring or even delaying initiation of drug use among adolescents is an appropriate goal of prevention.

The McKennan Poison Control Network will sponsor various activities during NPPW centered upon the theme of substance abuse. Included will be a poster contest for children around the theme of "One Moment is All It Takes--Make the Right Choice".

The Poison Control Center will also sponsor its 8th Annual Spring Toxicology Conference on March 23rd, from 4 pm-9 pm, at McKennan Hospital. The theme will be "Medical Complications of the Chemical Abuser". Dr. Michael Vance of Samaritan Regional Poison Center, Phoenix, Arizona, will be the keynote speaker. Dr. Vance has had extensive experience in the treatment of the substance abuser, and will give an excellent presentation on the topic and the management of the chemical user and abuser.

For more information, contact Pam Oines, R.Ph., Program Coordinator, at 1-800-952-0123 or Dr. Howard Burns, Medical Director, at 1-605-339-8100. #

Quality, Cost, Liability

Albin J. Janusz, MD
Aberdeen, SD

All of us remember the painting of the doctor and sick child where the doctor is at the bedside pondering what to do. Such a painting today would include the quality assurer, representative for the insurance company and an attorney. How did this intrusion between the patient and the physician come about? How could we, as physicians, have allowed such an intrusion?

Physicians, as a group, comprise a more powerful group politically than the ACLU, environmentalists, gay coalition, etc. We are held in a higher esteem by the public we serve than any other group. We fail, in spite of our numbers, by the silence of our voices, by our lack of unity, and by our willingness to follow rather than to lead. Let us consider Quality, Cost and Liability.

QUALITY: Quality care and the peer review process was established by law in 1965. The health care agency decided that Medicare recipients were not receiving quality care for their money. Despite evidence to the contrary, a new layer of bureaucracy was created. Quality was never explained nor defined. This gave the various agencies great latitude in defining their own perception of quality.

Quality assurance has become such an established entity that it has developed a life of its own. It has formal rules, an expected structure and an extensive new vocabulary. Originally established to assist hospitals in the monitoring of the level of care provided, unless there is a change from its current course, this process ultimately may dominate the hospitals it was created to serve. It has already gone far beyond peer review to the degree that it is sometimes difficult to discern whether a hospital surveyor is more interested in the quality of care or in the quality of quality assurance itself. The danger of this perception is that physicians and hospital administrators may focus more of their attention on improving quality assurance as a process rather than striving to improve the level of care, in other words, treat the charts rather than the patients.

Quality, we seem to have forgotten, is not a matter of complexity. Instead of fancy rhetoric on charts, or complicated medical strategies, quality actually boils down to something quite simple, serving patients, serving them in such a way that they keep coming back and that they tell other patients we care. Quality assurance, despite its many positive attributes, is a flawed system. It is expensive, divisive, misdirected and discriminatory.

It is imperative that we clean up the process while we collect the data necessary to determine if quality assurance really assures quality.

COST: There is no question that rationing of medical care will become a reality in the next few years. My concern is that doctors will be forced to decide who gets what care based on economic considerations over which we have no control. We are paying the price for a society whose leaders are unwilling to make public those hard decisions that will relieve us, the physicians, of the responsibility of making them privately at the bedside. If our Federal Government or State Government is determined to set limits on health care expenditures, then they, not we, must set limits on what care should be provided and when.

Technology is revolutionizing health care, providing earlier diagnosis, and more sophisticated treatments and saving patients who would otherwise die. But miracles cost money and they raise ethical and social dilemmas that no machine can resolve. Medical economists estimate that at least half of the growth in the nation's medical expenses stems from new technology. Patients pressure physicians to administer the latest technology fix and sometimes go doctor shopping until they get it.

Competition among hospitals also feeds the health care monster. The inflation in medical care is beyond our control, but the media never places the blame on technology, hospitals or patients but on the doorstep of the physician.

Ultimately beating the health care inflation monster will require making certain assumptions about the value of saving a life. At the abstract policy level that is hard enough. In specific cases it will be even harder. When it gets down to a treatment that has a one-in-a-hundred thousand chance of saving a patient's life, the patient usually will say "I want it".

LIABILITY: As economic considerations become more of a concern in the care of our patients, some of our patients will be denied care as well as some procedures. As a result of our decisions, some patients denied care will then sue us for negligence if their outcome is less satisfactory than it might have been had they received therapy.

To make a correct diagnosis the patient as well as the legal community expects to use every available procedure as well as every available test to accomplish that goal. We will be hard pressed to explain to a judge or a jury that we did not provide the desired care because it cost too much. We should demand, however, that standards be established either by legislation or adjudication, that will absolve us of liability for failing to

provide care that society has decided we should not provide because society cannot afford it. We are currently at great risk in this area. We must continue to fight rationing of medical care which not only makes us the rationers but at the same time holds us liable for failing to provide all the medical care possible for our patients.

CONCLUSION: Doctors, as a group, are not very active in civic affairs, politics, or in anything but medicine. That is our work ethic, our priesthood, our obsession, and it is one of the primary reasons that the health care system is about to undergo dramatic changes.

It is nice that doctors believe in the sanctity of medicine and believe that, because we are doing the best we can, truth will eventually prove us right. That says a lot for the basic motive of the practicing physician, but it is naive. Doctors need to wake up to look at reality. We must become more involved in our community, our patients and ourselves as physicians. Our nation's health care future depends on us. #

CORRECTION:

February 1990 Editorial, page 11, paragraph 4.
National statistics for 1988 indicate 1.15 million worker casualties were from repetitive motion, an ergonomic illness.

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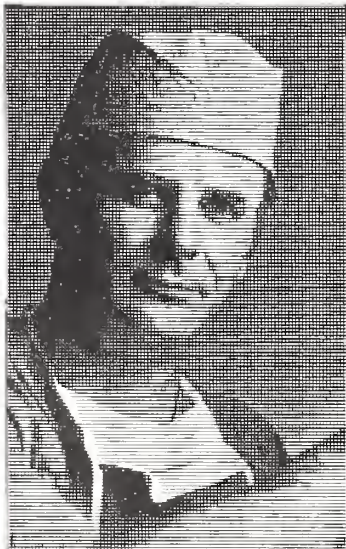
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Karen Pekas, President, South Dakota State Medical Association Auxiliary

One of the benefits of membership in the AMA Auxiliary is access to the various publications produced and distributed by the staff in Chicago. Recently I read one of the booklets titled, "What Every Physician's Spouse Should Know...Medical Family Support." The following ideas are taken from that publication.

To the people around them, physicians' families lead charmed lives. They seem to have all of the social and intellectual advantages that most people dream of---financial security, material possessions, nice homes, the best schools, plentiful friends, community respect and more. What the people around them don't realize is that any advantage may come at a price. For us, as spouses and families of physicians, the price is living with medicine.

Medicine is not a profession that is practiced from 9 am to 5 pm in an office, but is a profession that makes extraordinary demands as physicians daily face situations in which people's lives and well-being depend on their decisions, as they necessarily learn to distance themselves from the pain and suffering of patients for whom even their best professional efforts may not be good enough; as they accept the all-consuming commitment to search for answers that will save a life or improve its quality. These demands have consequences that affect the entire family. There is the lack of time,

the emotional unavailability, the inevitable telephone, the need to maintain public image. Today's environment brings added pressures of the threat and reality of litigation, the necessity of keeping up with technological advances and increasing specialization, increased government regulation and more aware, demanding patients.

Comments made by physicians' spouses in a recent AMA Auxiliary magazine, FACETS, reveal that the pressure is real for the medical family as well.

"If there's a dinner party or a special event, you're never really sure if you're going alone."

"How good can I feel about myself when I am angry with my husband because dinner is burned, and yet I know he is talking with the parents of a critically ill child."

"When push comes to shove, our children are the ones most likely to be shoved off his schedule."

"I've felt that I never had a father. He was a shadow man. Later he recognized it and tried to make up for it all, but you can only recapture so much."

"Our children get the message that if they have problems, they had better not complain because there are people out there who are in need of their absent parent a whole lot more than they."

"The feeling that we are a lot less important than medicine is the most common feeling."

These comments illustrate what medical families have known for many years; living with medicine is not always easy. The answer is to find some kind of balance to make sure the advantages medical families have are not overshadowed by what they sacrifice in emotional well-being and inner stability. Finding that balance takes work. But as one physician put it, "After all, things are pretty basic. We love our families, we want the best for them, we want them to be happy."

Remember that the healthiest families are those in which responsibilities are shared. Talk openly and honestly and solve problems together. Learn to compromise with everyone giving a little. Don't spend all of your time together discussing the problems of life. Use it to laugh and share the good times that make life worth living!

#

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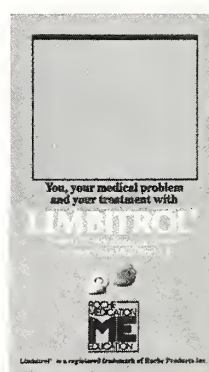
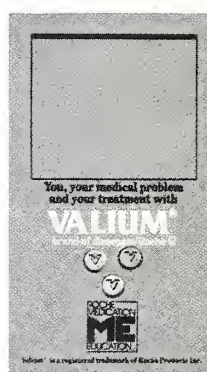
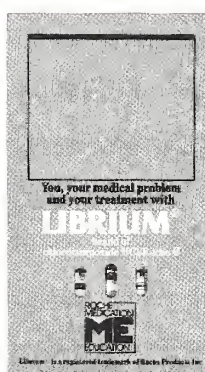
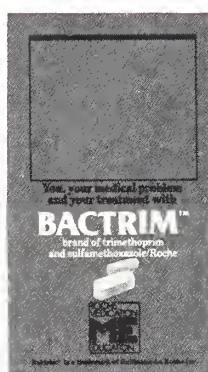
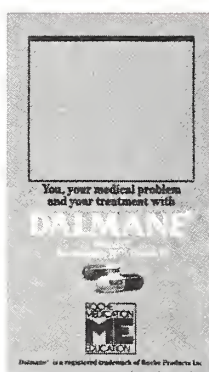


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New Physicians

The following physicians recently began practicing medicine and surgery in South Dakota.

Charles Ridge, MD, a native of Texas, has joined the Mobridge Family Practice Clinic in Mobridge. In 1959, he received his medical degree from Southwestern Medical School in Dallas, Texas and completed his internship at Methodist Hospital in Dallas.

Dr Ridge was in private practice in Texas until 1979 when he joined the Air Force. Most of his Air Force career was spent in Hawaii, Spain and the Philippines. Before moving to Mobridge, he was Chief of Family Practice at Ellsworth Air Force Base.

He and his wife Judith have two children.

Dr David Akkerman has joined the medical staff at St Luke's Hospital in Aberdeen. Dr Akkerman, a board eligible family practitioner, is a native of South Dakota. He received his medical degree from the University of South Dakota School of Medicine in 1986 and in June 1989, completed a family practice residency at the University of North Dakota in Fargo.

Another new physician who recently joined the staff of St Luke's Hospital in Aberdeen, is **Patrick Retterath, MD**, a board eligible anesthesiologist. Dr. Retterath, a native of Minnesota, received his medical degree from the University of North Dakota School of Medicine in Grand Forks in 1985. He completed an internship at University of North Dakota in Fargo in 1986 and two years of a four year anesthesiology residency at Foster McGraw Hospital in Maywood, IL and two years at Children's Memorial Hospital, Chicago, completing this training in 1989.

Brenda Farris, MD, a native of Sumter, South Carolina, has joined the staff at Sioux San Indian Health Service Hospital in Rapid City. Dr Farris received her medical degree from the Michigan State University School of Medicine in Kalamazoo in June 1985, and completed an internal medicine residency at the VA Medical Center, Sioux Falls, in 1989.

Dr Brenda Farris and her husband, Dr John Farris, have five children.

John Farris, MD, also a new physician in South Dakota, joined the Fort Meade VA Medical Center. Dr Farris, born in Helena, Montana, received his medical degree from the Michigan State University School of Medicine, Kalamazoo, in June, 1985. He completed an internal medicine residency at the VAMC in Sioux Falls in 1989.

The Yankton Medical Clinic has announced that **David Jenny, MD**, family medicine, has joined their staff. Dr. Jenny was born in Columbus, Nebraska. He received his medical degree from the University of Nebraska College of Medicine, Omaha, in 1968. He completed his internship training in family medicine at Bryan Memorial Hospital, Lincoln, Neb, in 1969. Dr. Jenny came to Yankton from Alma, Neb where he has had a private practice since 1969.

Dr. Jenny and his wife, Kathy, have three children.

Another new family medicine physician, who joined the Yankton Medical Clinic is **Steven Vlach, MD**. Dr Vlach, a native of Omaha, received his medical degree from Creighton University in 1986. He completed his internship and family practice residency at the Siouxland Medical Education Foundation in Sioux City, Iowa, in June, 1989. Dr Vlach is working at the Yankton Medical Clinic's satellite clinic in Hartington, Neb.

Dr Vlach and his wife, Nancy, have two children. #

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Lee Beckwith	Pathology	Matthew Rieth	PM & R		
Jerry Blow	PM & R	Tim Teslow	Surgery		

TRANSITIONAL - SIOUX VALLEY HOSPITAL Program Director: Jerome Freeman, MD

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The Physician's Recognition Award (PRA) was established by the AMA House of Delegates in 1968. The purpose of the award is to encourage participation in continuing medical education and to recognize physicians who complete acceptable programs of continuing medical education. About 24,000 physicians apply for the PRA each year. About 73,000 have valid certificates. The certificate is a tangible way for physicians to demonstrate that they have engaged in continuing medical education in order to maintain knowledge and skills.

Certificates suitable for framing are provided for one year, two years, or three years of effort. One year certificates require a total of fifty hours of continuing medical education, twenty hours of which must be AMA PRA Category I. Two year certificates require 100 hours of education, forty hours of which must be AMA PRA Category I. Three year certificates require 150 hours of education, 60 of which must be AMA PRA Category I. The object of providing certificates recognizing different lengths of activity is to make it possible for physicians to report completed education to the AMA and to another organization, such as a state licensing board, that requires reporting at different intervals. There are reciprocity arrangements with 17 other organizations; that is, the PRA certificate will be provided if continuing medical education requirements of the other organizations are met. The organizations with whom there are reciprocal arrangements are as follows:

American Academy of Dermatology (AAD)
American Academy of Family Physicians (AAFP)
American College of Obstetricians and Gynecologists (ACOG)
American College of Preventive Medicine (ACPM)
American Psychiatric Association
American Society of Clinical Pathologists/College of American Pathologists (ASCP/CAP)
American Society of Colon and Rectal Surgeons (ASCRS)
American Society of Plastic and Reconstructive Surgeons (ASPRS)

American Urological Association, Inc. (AUA)
Arizona Medical Association (ArMA)
California Medical Association (CMA)
Massachusetts Medical Society (MMS)
Medical Society of the District of Columbia (MSDC)
Medical Society of New Jersey (MSNJ)
Medical Society of Virginia (MSV)
National Medical Association (NMA)
Pennsylvania Medical Society (PMS)

The certificate is accepted by a number of states as evidence that continuing education required for reregistration of the license has been completed. Both participation in lectures and demonstration activities, and in self-learning activities can be reported. Activities that meet educational standards established by the Association can be designated "AMA PRA Category I" by educational institutions accredited for continuing medical education. State medical societies, medical specialty societies, medical schools, and hospitals are among the institutions accredited for continuing education. For more information call: Arthur Osteen, PhD, American Medical Association, (312) 645-4677.#

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Future Meetings

April

ENT Update Workshop for Primary Care Physicians, Margaret G. Sheffer Aud, St Joseph's Hosp, St Paul, MN, Apr 6. Fee: \$125. 6 3/4 hrs AMA Category I credit. Contact: Kathleen Fritz, Registrar, CME, Ramsey Found, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Physician in Management I & II, Cottonwoods Resort, Scottsdale, AZ, Apr 23-27. 31 hrs CME credits. Contact: Am College of Phys Exec, 4890 W Kennedy Blvd, #200, Tampa, FL 33609-2575. Phone: (813) 287-2000.

40th Annual Postgraduate Symposium on Anesthesiology, Ritz-Carlton, Kansas City, MO, Apr 27-29. Fee: \$350. 16.5 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvds, Kansas City, KS 66103. Phone: (913) 588-4490.

May

Ambulatory Surgery '90, 16th Annual Meeting, Anaheim Marriott, Anaheim, CA, May 2-5. Fee: \$495. Contact: FASA, 700 N Fairfax St, #520, Alexandria, VA 22314. Phone: (703) 836-8808.

4th Annual Devil's Tower Bicycle Trek Classic, starts at the Holiday Inn of the Northern Black Hills, May 4-6. Fee: \$30. Contact: SD Lung Assoc, 208 E 13th St, Sioux Falls, SD 57102. Phone: (605) 336-7222.

American Roentgen Ray Society, Washington DC, May 13-18. Contact: Michael Bernstein, Am College of Radiology, 1891 Preston White Dr, Reston, VA 22091. Phone: (703) 648-8900.

1990 South Dakota Rural Health Conference, Ramkota River Centre, Pierre, SD, May 23-25. Contact: SD Office of Rural Health, 523 E Capitol, Pierre, SD 57501. Phone: (605) 773-3693.

Advances in Pediatrics, Hilton Head Island, SC, May 25-27. Fee: \$365. 16 hrs AMA Category I credit. Contact: Am Academy of Peds, Div of Cont Educ, PO Box 927, Elk Grove Village, IL 60009-0927. Phone: 1-800-433-9016, ext 7657.

June

Eighth Annual Cornhusker Canadian Clinical Conference, Wolverine Lodge, Lynn Lake, Manitoba, Canada, June 16-23. Fee: \$150. Contact: Sharlene Knippelmeyer, RN, BS, Educ & Staff Develop, Lincoln Gen Hosp, 2300 S 16th St, Lincoln, NE 68502. Phone: (402) 473-5638.

Clinical Pediatrics, Westin Hotel, Washington, DC, June 22-24. Fee: \$365. 16 hrs AMA Category I credit. Contact: Am Academy of Peds, Div of Cont Educ, PO Box 927, Elk Grove Village, IL 60009-0927. Phone: 1-800-433-9016, ext 7657.

Thirteenth Annual Black Hills Seminar on Advances in Clinical Pediatrics, Golden Hills Resort, Lead, SD, June 27-29. Contact: Debbie Meyer, Dept of Peds, USD School of Med, PO Box 5039, Sioux Falls, SD 57117-5039. Phone: (605) 333-7178.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

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Beneficence in Medicine: A Call to Heroism

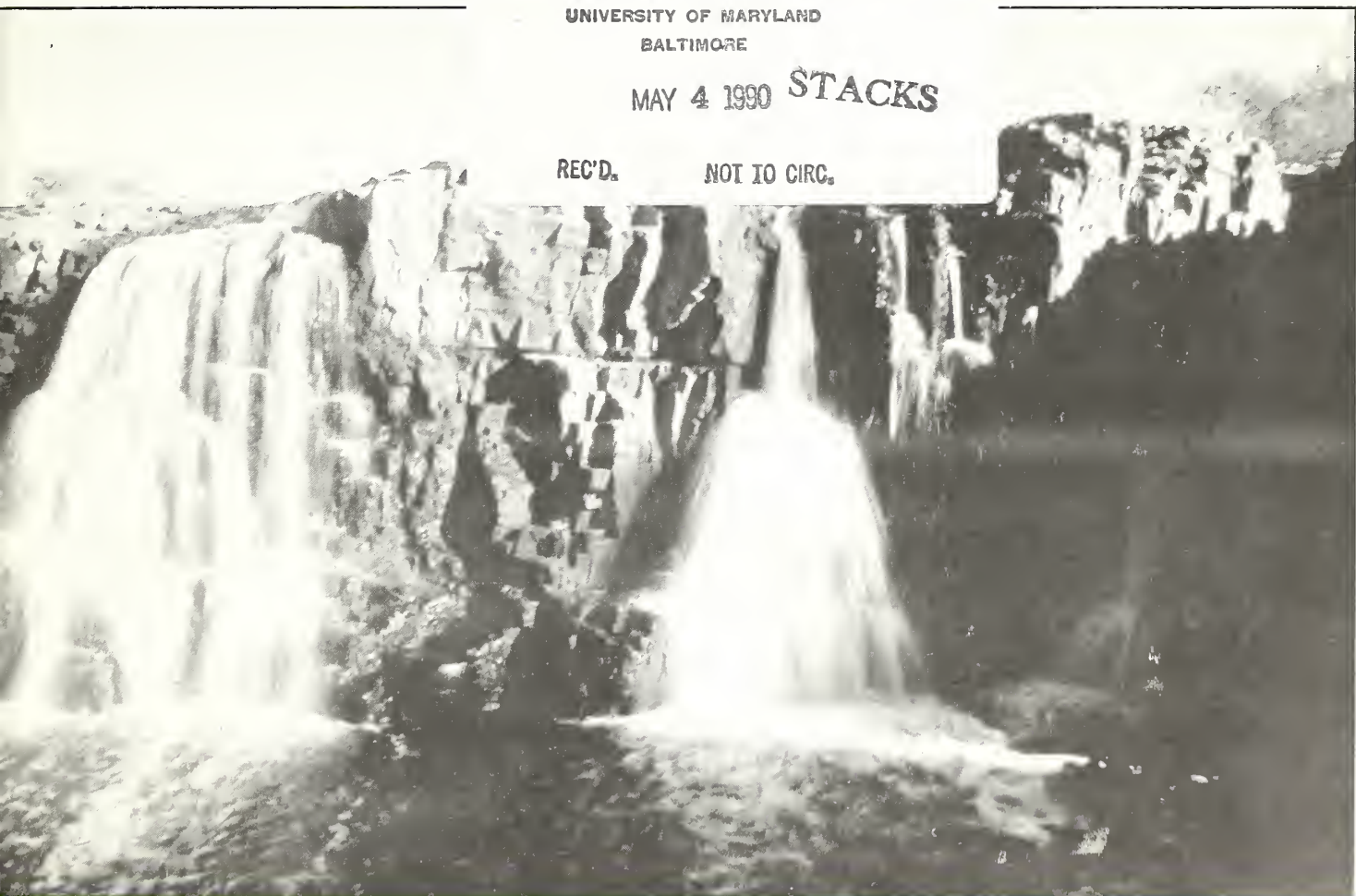
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References

- 1 *USP DI Update*, September/October 1988, p 120.
- 2 *Br J Clin Pharmacol* 1985;20:710-713.
- 3 *Data on file*, Lilly Research Laboratories.
- 4 *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
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an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for AxiD.

AxiD was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of AxiD.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered AxiD and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumentary—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of AxiD have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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About the Cover

The Sioux River cascades over the pink quartzite rock in Falls Park. The quartzite has kept the Sioux Falls on its present course for thousands of years. The falls is located in the city that is named after it, Sioux Falls, SD. (Photo courtesy of the South Dakota Department of Tourism)

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OUTPATIENT OBSERVATION SERVICES

South Dakota Foundation for Medical Care encourages physicians to consider the use of outpatient observation services when it is appropriate. HCFA guidelines suggest that physicians, when making judgments regarding the necessity of the acute care admission versus outpatient observation, should use a 24 hour benchmark*. Patients expected to require 24 hours or less for treatment may need the observation status; however, there is no hourly limit. Outpatient observation services should not substitute for medically appropriate inpatient admission.

Listed below are patient history and physical findings where physicians may want to consider the use of the outpatient observation services when applicable. SDFMC does not utilize a listing of patient conditions or physical findings that require outpatient observation services. This listing represents patient care problems that may, under some circumstances, require less than 24 hours of care.

Atypical chest pain with normal EKG	Dizziness or syncope of undertermined origin
Generalized allergic reaction	Minor eye injury
Head trauma without focal neurologic findings	Headache of unknown etiology
Asthma	Epistaxis
Exacerbation of COPD	Smoke inhalation
Urinary retention requiring indwelling or suprapubic catheter	Renal colic
Past-dilatation and curettage	Alcohol intoxication
Abdominal pain not requiring surgery	Victim of assault/sexual abuse
Post-procedure:	Vaginal bleeding
Myelogram	Evaluation of labor
Endoscopy	Dehydration
Spinal puncture	Migraine episode
Ambulatory surgery	Fracture of long bones
	Seizure in known epileptic with inadequate therapy

* 24 hrs may be exceeded, if indicated.

Beneficence in Medicine: A Call to Heroism

Jerome W. Freeman, MD¹

ABSTRACT

This article analyzes the physician's role from the perspective of medical ethics, with emphasis on the principle of beneficence. The concept is advanced that the physician has an implicit contract with society, which obligates dedication to the patient's good. The essence of being a physician is seen to reside in an orientation to service.

The image of the physician is in a state of flux and uncertainty. Public opinion polls in recent years have shown the general public to be less trusting and less satisfied with their doctors. More importantly, perhaps, physicians themselves appear to be having a "crisis of identity" about who they are and what their role in society should be. Put succinctly, the physician of today seems torn between an image of the doctor as a selfless servant of suffering humanity and the reality of the doctor as a hard-nosed business person, struggling to maintain market share and personal prosperity. These two roles may not always be mutually exclusive, but they certainly appear to be dichotomous. This paper proposes to gain perspective on who the physician should be by analyzing the role and duties of the physician from the standpoint of medical ethics, with particular emphasis on the principle of beneficence.

In the past twenty years, the field of medical ethics has burgeoned. A number of factors have contributed to this development. Certainly, it is widely recognized today that ethical and value dilemmas are an inescapable part of medical practice. Arguably, it is difficult to practice high quality medicine without recognizing, and responding to, ethical issues.

As medical ethics has evolved into a widely recognized discipline, consensus has developed that the best way to address the myriad of ethical quandries in medicine is through the application of basic ethical principles. While some diversity of opinion exists as to which principles should be included, most authorities cite four principles as being of paramount importance: autonomy (the patient's right to self direction); non-maleficence (the concept that health care providers must strive to avoid harm to the patient); beneficence (the concept that the physician should actively work for

the good of the patient); and justice (which calls for fairness in resource allocation).

Focus on these ethical principles is especially important given the increasing emphasis in our society on the business of medicine. Examples of this include the industrialization of medical care by larger for-profit corporations; increased acceptance and promotion of competition in medicine and in the marketing of medical care; and existant and proposed Medicare policies which endeavor to immerse the physician in the fiscal aspects of health care delivery. Collectively, these and other factors have seemed to solidify many physicians' attitudes toward medical practice being primarily and essentially a business. Some physicians have seemed to welcome this change, sensing freedom from social

...the physician of today seems torn between an image of the doctor as a selfless servant of suffering humanity and the reality of the doctor as a hard-nosed business person...

restraints which formerly limited doctors. For some physicians, it is as if the shackles have been removed by today's society and they are now free to operate primarily as for-profit business people. In this mode, there certainly can be a temptation to charge patients as much as the market (or Medicare) will bear, and to have strong motivation to do those procedures and tests which are particularly profitable for the physician. While most physicians remain unwilling to acknowledge doing any such ordering unless it is "medically appropriate", certainly very great regional and national

1. Neurologist, 1200 S. Euclid, Sioux Falls, SD. Director, Center for Bio-Medical Ethics, Sioux Valley Hospital.

differences exist in test ordering, invasive procedures and some surgeries. For physicians to facetiously argue (either to themselves or to the public) that the only reason such for-profit entities are ordered is "for the patient's good" is a claim that must be viewed with some circumspection.

...beneficence can be viewed as part of the fundamental core of what it means to be a physician...

Of the factors mentioned above which have helped to fuel heightened commercialism in medicine, the effect of Medicare policies warrant specific consideration. While physicians and the general public can readily agree that the Medicare system is in dire financial straits, the government's manner of treating physicians in recent years has led to much bitterness and cynicism among physicians. Not only have physicians' fees been arbitrarily frozen and then severely constrained, but also the Medicare system has (from many physicians' perspectives) developed a systematic program of harassment of physicians through increasing paperwork, denials of claims, and delay in payments. Many physicians view such policies as the forerunner of some type of socialized medical care system in this country which most likely will act to significantly control physicians' fees and reduce their incomes. In this setting, some physicians cynically embraced more emphasis on commercialism in medicine, partly with the attitude of "getting mine while it can still be had".

Certainly observations like the foregoing ones must be made cautiously, and even then they are likely to generate rancor and disagreement among some physicians. In the context of such debate, it certainly must be stressed that commercialism in medicine is not all bad. For instance, increased competition can lead to significant cost savings. Also, it is possible for a physician to be a fiscally prudent business person, and still administer quality medical care. It can be argued, however, that a commercial focus alone is often not enough to make medical practice very attractive -- especially given the demands and frustrations inherent in medicine. Geokas and Branson¹ note: "The profession sees itself as under pressure from all sides: from the state and federal governments, the legal profession, and third party payers. There is an aura of drastic decline in financial security and of a great decline in prestige in the community. These are coupled with perceived enormous demands on personal energy and time. Therefore, many practicing physicians now loudly advise against medicine as a profession."

Given the current atmosphere and attitudes in medicine, a critical question which logically arises is:

"What is the physician's primary goal or duty?" To attempt to answer this question by saying the physician is both an agent who works primarily for the good of his or her patients and is equally an entrepreneur in the business of medicine is begging the question. While the physician can assume both roles, necessarily one must take precedence. And which role individual physicians and organized medicine choose to emphasize has much to do with what the medical profession is and will become.

An ethical response to this issue can be developed by analyzing the principle of beneficence and the duty this imposes on the physician. Beneficence implies a positive duty to "do good" or to help the patient. This principle is stressed in such documents as the Hippocratic Oath ("I will come for the benefit of the sick"), and in the World Medical Association Declaration of Geneva ("I solemnly pledge myself to consecrate my life to the service of humanity...").² Virtually all observers agree that beneficence, as the duty to promote the patient's welfare, is a usual and admirable goal of medicine. What is at issue, perhaps, is how strongly obligated is the physician to work for the patient's good. Is beneficence merely a fortuitous and socially laudable offshoot of practicing good technical medicine, or does the principle of beneficence strongly obligate the physician to make the patient's good the primary focus of medical practice?

Significant differences of opinion exist with respect to this question. A traditional viewpoint has pictured physicians as "self-sufficient philanthropists whose beneficence appears almost a matter of giving gifts."³ Many physicians practicing today seem to prescribe to this notion. Service to the patient is seen less as an obligation incumbent upon the physician than as a socially beneficial adjunct of making one's living in the practice of medicine.

...a commercial focus alone is often not enough to make medical practice very attractive - especially given the demands and frustrations inherent in medicine...

A strong argument can be made for the opposite view -- i.e. that beneficence is a duty which strongly obligates the physician to his or her patient. Indeed, beneficence can be viewed as part of the fundamental core of what it means to be a physician. Beauchamp and Childress⁴ discuss the duty of beneficence in terms of a social contract that exists between the physician and society. Speaking of physicians, they note: "They are indebted to society in various ways, so much so that some have in-

terpreted their indebtedness as a 'covenant' with society...but in the contemporary world, the professional is greatly indebted to society (e.g. for education and privileges) and to patients, past and present (e.g. for research and 'practice'). Because of this indebtedness, the medical profession's duty of beneficence is misconstrued as mere philanthropy." Speaking in a similar vein, Zuger⁵ notes: "the contract...imposes a fiduciary obligation on the physician to act in the patient's interests..."

...we could begin again to strongly advocate medical practice specifically because of its opportunity for benefit and service to society...

This notion of a contract or covenant between the physician and society is compelling. Certainly many patients and other members of society seem to yearn for, and idealize, the notion that the physician's role is one of service. In illness, the patient is particularly vulnerable to the control of the physician and must rely on the physician to be his or her advocate. This is especially true as the patient opens himself or herself to physical and emotional evaluation by the physician. The physician, like the priest, is entrusted with personal secrets, aspirations and failings of the patient. Such societal trust demands some accountability on the part of the physician. As a measure of this accountability, society expects the physician to possess scientific and technical competence. In addition, I believe society expects the physician to be altruistic -- to have an unselfish concern for, and dedication to the welfare of the patient. Nelson⁶ sees altruism as an intrinsic part of the art of medicine and notes: "Our ethics call for us to put the welfare of our patient above our own financial self interest." The patient often cannot know or verify this selfless orientation on the part of the physician, but most patients trustfully rely on it.

A notion similar to altruism is suggested by the term "service". The definition of this term includes benefit and "contribution to the welfare of others". Again, the connotation here is not merely scientific or technical excellence, but also implies a physician personally extending and sacrificing himself or herself for the benefit of the patient.

This type of service can take many forms. One example might be the physician who conscientiously learns not only the medical indications for antibiotics, but also their costs, and makes an effort to prescribe for the patient the least expensive agent possible. In this context the physician might resist the strong encourage-

ment of a drug marketing representative to prescribe a new, expensive antibiotic, if an older and established drug is adequately effective. Another example might be the physician who makes a second (and probably unreimbursed) hospital visit to the patient after office hours because the physician senses a very anxious and depressed patient in need of emotional support. A third example might be the physician who willingly treats patients with AIDS, despite some fear and the personal risk this entails.

Still another type of selfless service is discussed by Hilfiker.⁷ He worries that medicine is moving from being a servant profession to a business, and he contends that "we in medicine need the poor to bring us back to our roots as a servant profession". Although most physicians do some charity work, few welcome it. Perhaps physicians need to be more sensitive to the poor and socially disadvantaged, and more actively willing to serve them.

In the world around us, one occasionally comes upon quiet heroes - those people who quietly and regularly work for the good of their community, often without much recognition. Frequently, this activity takes the form of some type of volunteer work. Those in medicine are fortunate to have abundant opportunity for quiet altruism and service in the course of the routine daily duties of their profession. And many physicians make beneficent action a part of their daily practice.

However, it is my contention, that as a profession, medicine does not promote the duty of beneficence as explicitly and actively as it should. I am aware of very little discussion of this concept by practicing physicians, residents or medical students. Medical discussions are much more likely to center on Medicare reimbursement policies or insurance company harassments or medical/legal threats. While such topics are important to the business of practicing medicine, they do not speak to the essence of what can, and should, be characteristic of the medical profession -- a willingness to undertake altruistic service.

Perhaps if physicians as a group were to promote such discussion and action, this focus could begin to energize a largely frustrated and embattled profession with new optimism and purpose. Instead of the current trend of many physicians discouraging young people from going into medicine because of the ongoing turmoil and change, we could begin again to strongly advocate medical practice specifically because of its opportunities for benefit and service to society. We might move toward a profession which optimistically and articulately promotes quiet heroism, in the form of selfless service, among its members. In Alfred Lord Tennyson's words (describing the not so quiet hero Ulysses), our renewed commitment to service could galvanize the medical profession "to strive, to seek, to find and not to yield".⁸

REFERENCES

1. Geokas MC, Branson BJ: Recruiting students for medicine. *Ann of Int Med* 1989;111:433-436.
2. Beauchamp TL, Childress JF: Principles of biomedical ethics. Oxford Press 1983.
3. Ibid.
4. Ibid.
5. Zuger A, Miles SH: Physician, aids and occupational risk.

JAMA 1987;262:1924-1928.

6. Nelson AR: Humanism and the art of medicine. *JAMA* 1989;262:1228-1230.
7. Hilfiker D: Unconscious on the corner... *JAMA* 1987;258:3155-3156.
8. Tennyson AL: Ulysses: in Sound and Sense. (L. Perrine, ed) Harcourt, Brace & World Inc. 1963.

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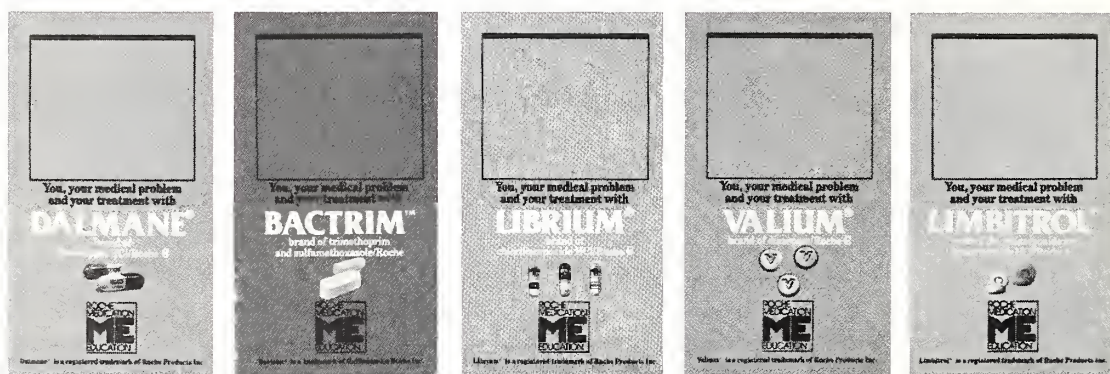


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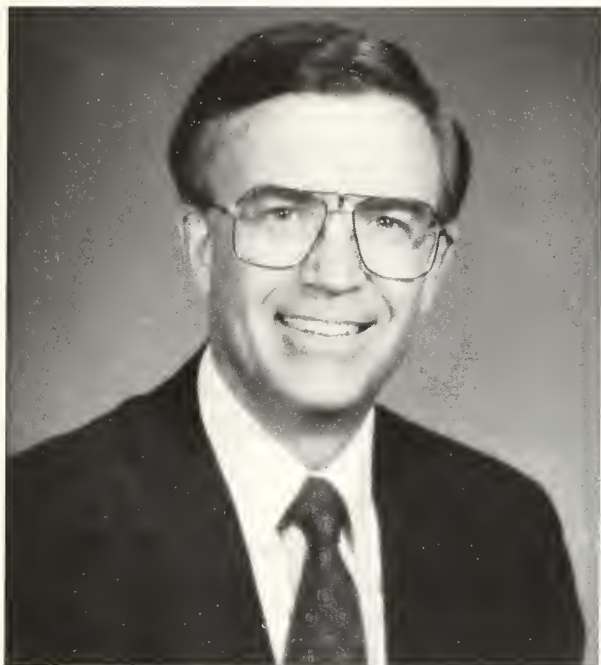
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President's Page



Michael W. Pekas, MD, President, South Dakota State Medical Association

It All Starts at the District Level

As I begin dictating this President's page, it is now March and I have had the privilege of visiting ten of the twelve district medical societies with Bob Johnson and have found these visits to be enjoyable and most interesting. My wife, Karen, accompanied us on many of these visits in her capacity as president of the South Dakota State Medical Auxiliary, and she enjoyed her visitations as well.

Our first visit was to the Whestone Valley District Twelve, which has become somewhat of a tradition for a new president. It was held on an August evening hosted by Dr Joe Kass and his wonderful wife in their beautiful backyard. "As a dumb new guy" you don't know quite where you fit in when you start making these presidential visits, and I wasn't sure whether or not I would be expected to give a formal speech or whether a more informal approach was appropriate. I found out very quickly over my first few visits, that an informal question and answer format certainly seemed to work better than a prepared or canned speech. I should have known this beforehand being a native South Dakotan.

The thing that struck me most about these presidential district visits was that each district has its own set of special concerns and differing agendas as far as the practice of medicine and its interaction with organized

medicine is concerned. This somewhat surprised me to start with, but only because I had yet to realize that these regional differences are what make the State Medical Association and the AMA the effective organizations they truly are.

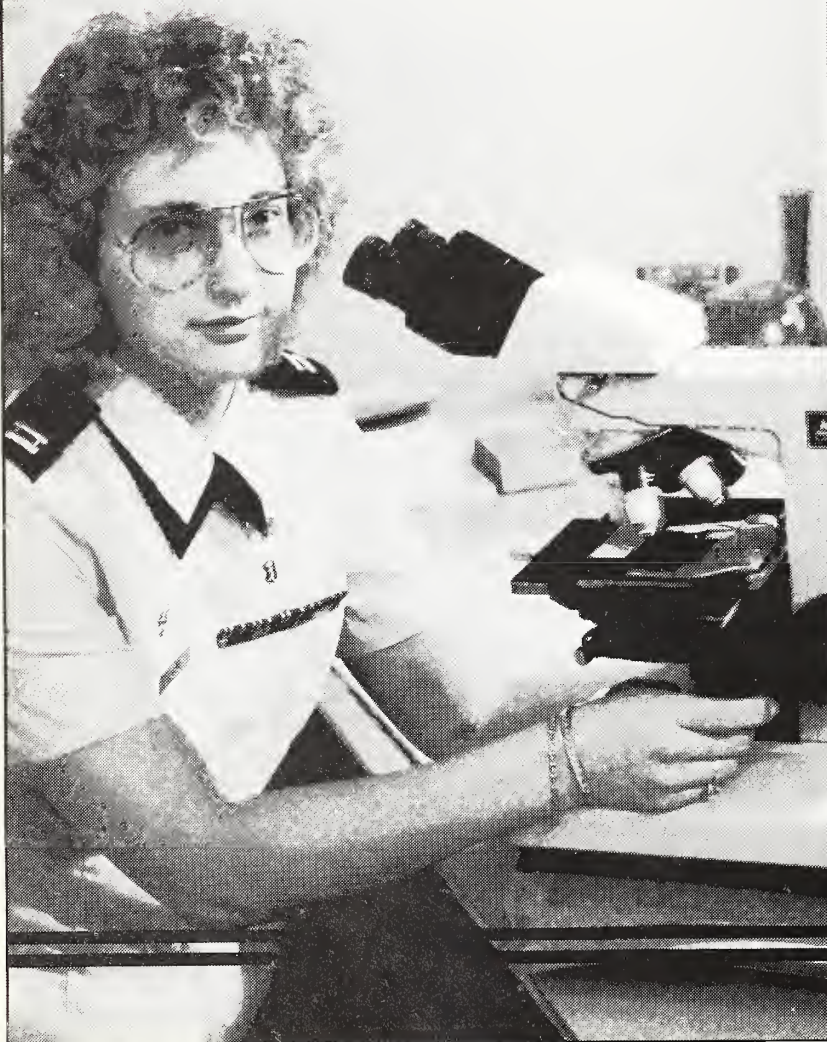
Some districts are very, very small and meet only for special occasions while others are quite large and meet on a more formal basis, but large or small, the districts seem to get the job done as far as involvement in the state organization is concerned. With that involvement, each district then has a forum in the House of Delegates and Council in which their concerns can be heard, and in a larger sense, these concerns can be heard on a national level through the State Medical Association and the North Central Medical Conference.

It is extremely important that we involve ourselves in our district medical societies and nurture these societies so that continued broad based representation in our State Medical Association can continue. These district medical associations are the "stuff" that organized medicine as a whole is made of. The concerns and problems that face the smaller districts are just as important and many times more so than those of the larger districts, especially in questions and problems involving rural health care. The State Medical Association needs the active involvement of every district medical society to remain healthy and strong, but more importantly so that the State Medical Association can represent the needs of all of the physicians of this state. The specialty societies within our state are also extremely important, and involvement of the State Medical Association with these specialty societies needs to continue and should be expanded.

The AMA many times is viewed as a large, cold, unfeeling monolith by those outside of medicine as well as some within medicine itself. But when one looks at the AMA more closely, one discovers a continuity of representation that starts right at the district medical society level as a truly grass roots organization, and it is to my mind one of the most democratic organizations in existence. So keep the home fires burning and don't for one minute think that what you do within your medical district, no matter how small it might be, does not have an impact on medicine at its highest levels. #

A handwritten signature in dark ink, appearing to read "M. Pekas". The signature is fluid and cursive, with a large loop at the end.

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Robert E. Van Demark, Sr, MD, Editor

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Its use in other types of anemias (such as in cancer, chemotherapy, rheumatoid arthritis, sickle-cell disease, repopulation of bone marrow after transplantation, AIDS) require further study and evaluation. Wider clinical applications will be dependent on the hormone's high cost which may tend to increase in the future.

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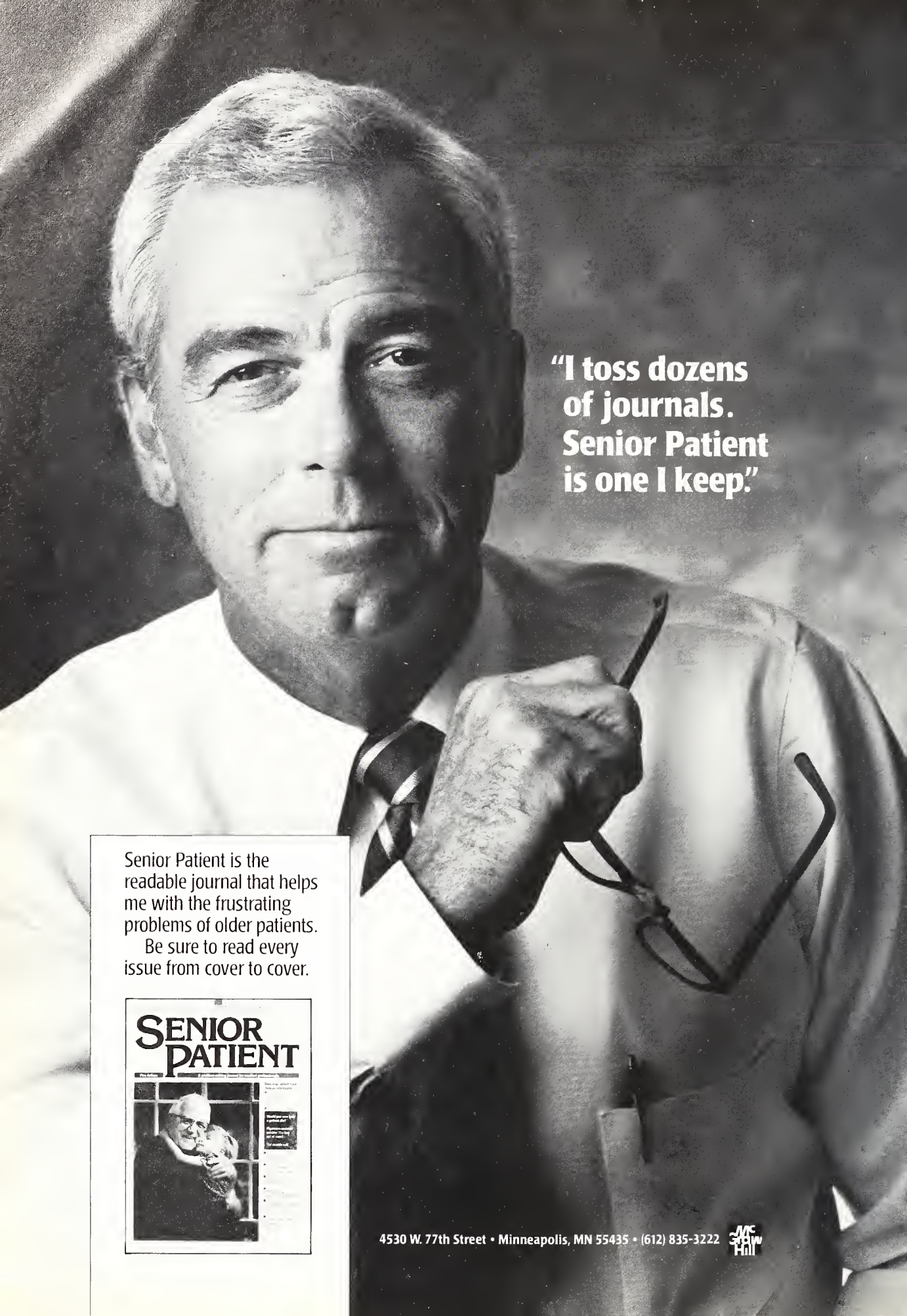
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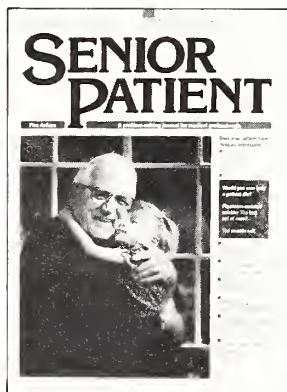
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Parathyroid Cyst: Case Report of a Rare Surgical Lesion of the Neck

K. Alan Mills, MD¹
H. L. Aanning, MD²

ABSTRACT

A thirty-two year old female presented with a neck mass of probable thyroid origin. Repeated fine needle aspirations failed to provide diagnostic tissue or long-term resolution of the cystic mass. The clinical and pathologic findings in this case of a parathyroid cyst are presented.

Parathyroid cyst is a rare cause of neck mass. Recurrence of a cyst is also unusual following aspiration. The aspiration of clear watery fluid from a neck mass offers presumptive evidence of a parathyroid cyst. The demonstration of parathyroid hormone in the cyst fluid is considered diagnostic.

INTRODUCTION

Parathyroid cyst is a rare and often unsuspected finding in patients presenting with a neck mass. Parathyroid cysts account for 1% of all neck cysts⁷ and only 0.08% of all thyroid operations.⁵ Hyperparathyroidism has been reported in 9%-17% of patients.⁵⁻⁷ Those which are functional are thought to represent cystic degeneration of a parathyroid adenoma. In this setting, the rupture of a functioning parathyroid cyst may result in recurrent hyperparathyroidism.

Pre-operative consideration of a parathyroid cyst is important, as they often mimic solitary thyroid nodules resulting in unnecessary thyroid lobectomy and even sub-total thyroidectomy.⁶

Case Report

A thirty-two year old caucasian female noted swelling in the left side of her neck. Physical examination revealed a fluctuant mass in the left lower neck, anterior to the sternocleidomastoid muscle. The patient experienced dysphagia, but had no difficulty breathing. Chest x-ray and technetium thyroid scan were normal. Ultrasound confirmed a cystic mass in relation to the left lobe of the thyroid (Figure 1). Repeated fine needle aspirations were performed over a two-month period with the recovery of clear watery fluid. Both specimens were negative by cytologic examination. A thyroid

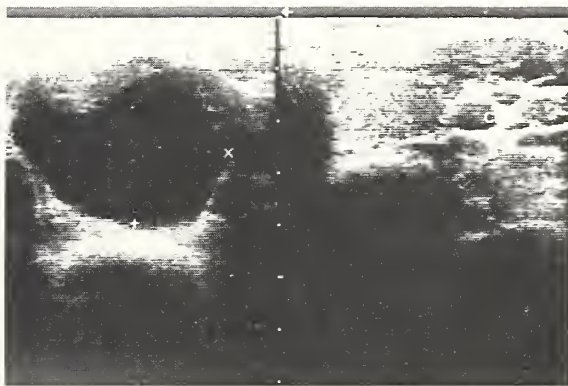


Figure 1

Lower cervical ultrasound depicting the sharply defined lucency of a parathyroid cyst two months after fine needle aspiration had been performed.

profile, including that of TSH were normal. Serum total calcium was 9.2 mg/dl (normal 8.4-10.2 mg/dl).

At the time of surgical exploration of the neck, a thin-walled cystic structure was found between the trachea and the left lobe of the thyroid. It was easily excised by sharp dissection and was without obvious communications. The thyroid appeared entirely normal.

Pathologic Findings

The neck mass consisted of a 5.3 cm multiloculated thin-walled cyst (Figure 2). The cyst was filled with clear watery fluid. Both the inner and outer surfaces were smooth. There were no solid areas identified so unfortunately, no parathyroid tissue was suspected.

1. Pathologist, Department of Pathology, Sacred Heart Hospital; Laboratory of Clinical Medicine, Yankton, SD.
2. General surgeon, Department of Surgery, Yankton Medical Clinic, Yankton, SD.

Thus, there was no measurement of parathyroid weight nor was there cyst fluid saved for parathyroid hormone assay.

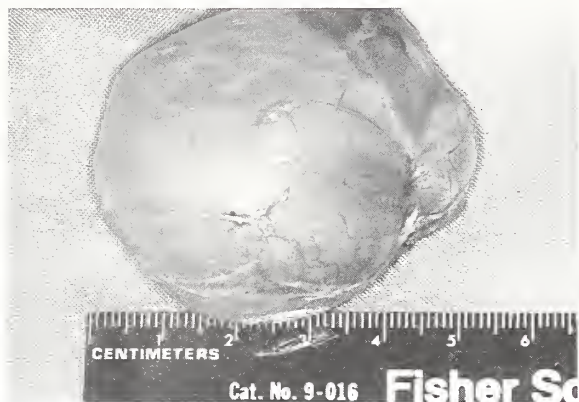


Figure 2

Large multiloculated parathyroid cyst.

Histologically, the cyst wall was composed of a thin fibrous band lined by a single layer of bland appearing, low cuboidal cells (Figures 3 and 4). Within and external to the cyst wall, was parathyroid tissue composed primarily of uniform chief cells having the characteristic clear cytoplasm. Interspersed fat and small aggregates of oxiphil cells were also identified.

COMMENTS

In our review of the English literature, the most recent series of parathyroid cysts was reported by Rosenberg et al in 1982. He added 14 cases to the previously reported 143 cases. Additional case reports have since followed.⁷ Although not likely to be encountered in every general surgeon's practice, parathyroid cyst should be considered in the differential diagnosis of a cystic neck mass.

The origin of parathyroid cysts appears uncertain. Four theories have been suggested: (1) embryologic



Figure 3

Photomicrograph of cyst wall. The luminal surface demonstrates an attenuated lining of cells resembling the parathyroid chief cells within the cyst wall (Hematoxylin-eosin, X100).

remnants of the third or fourth pharyngeal pouches, (2) coalescence of microcysts, (3) simple retention cysts, and (4) cystic degeneration within an adenoma⁴ (referred by some authors as pseudocysts). Retention cysts are common in most secretory or glandular tissues. Microcysts are an extremely common finding in normal parathyroids, especially with increasing age. Ultrastructurally, many similarities have been noted between the cyst lining cells and the parathyroid chief cells.⁴

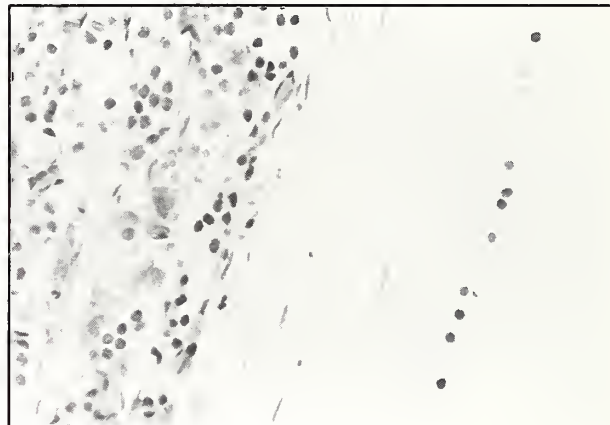


Figure 4

Cyst lining and wall (Hematoxylin-eosin, X400).

Parathyroid cysts occur most commonly in the fourth to sixth decades and are 2.5 - 3 times more prevalent in females when non-functional.^{5,6} Eighty-seven percent have been located in the lower neck⁷ but they may arise anywhere between the mandible and the mediastinum as with parathyroid adenomas. Some also have been located within the thyroid. The largest parathyroid cyst measured 8 cm.^{1,5}

Most patients with parathyroid cysts are asymptomatic, but larger lesions may cause tracheal compression, pain or recurrent laryngeal nerve palsy.⁵ Hyperparathyroidism may also be present when a cyst arises in a parathyroid adenoma.

By physical examination, the cystic masses may appear to be more globular, yet smooth and more fluctuant, than a thyroid nodule. Radionucleotide thyroid scan would demonstrate an area of decreased uptake, simulating a cold thyroid nodule. Cervical ultrasound can provide documentation of the cystic nature of a neck mass but may be of limited value in distinguishing thyroid from parathyroid.

At the time of surgery, most parathyroid cysts are found at the inferior border of the thyroid.¹ The thin, gray-white to pink-tan, translucent cyst is often loosely adherent to the thyroid, thus having a definite cleavage plane. This allows resection of the entire mass unlike a thyroid cyst. Although most are solitary and unilocular, all four parathyroids should be visualized as there may be hyperplasia, multiple adenomas or cysts involving multiple glands.⁵ Transient hypoparathyroidism has

been described following removal of a parathyroid cyst.⁹ These authors postulated that the cyst had assumed function for the other three glands. Recurrent hyperparathyroidism may result from the in-situ disruption of a functioning cyst.

Hyperparathyroidism may accompany up to 17% of parathyroid cysts. It is rare for the simple (non-adenomatous) or true cyst to be functional.⁶ Yet, some authors have suggested that serum calcium be measured on all patients with alleged thyroid lesions.⁶ In those patients who are hyperparathyroid, removal of the cyst, even when no parathyroid tissue remains, results in post-operative normocalcemia.⁵

Prior to the age of fine needle aspiration, the diagnosis of the parathyroid cyst required surgical excision and the demonstration of parathyroid tissue within the wall of the cyst. Since parathyroid cysts are virtually never malignant, fine needle aspiration can prove to be diagnostic and therapeutic. In the non-hyperparathyroid patient, needle aspiration alone may result in resolution of the cyst. There are only two previous reports of parathyroid cysts having recurred following aspiration.⁷ Our case represents the third report of recurrence subsequent to fine needle aspiration..

A presumptive diagnosis of parathyroid cyst can be made with the recovery of clear watery fluid from a neck cyst.³ Parathyroid hormone of two to several thousand times the normal serum PTH is considered to be diagnostic.^{1,4,7} The C-terminal PTH is the preferred assay.⁷ The parathyroid hormone is thought to arise from the cyst lining cells and supports their chief cell origin. In contrast, thyroid cysts will be negative for PTH and are typically straw-colored, chocolate or bloody in appearance. The presence of increased PTH in parathyroid cyst fluid does not indicate hyperparathyroidism.

Cytologic examination of the cyst fluid may also be of benefit. Characteristically, there are few small epithelial-like cells with a fine cytoplasm. Periodic acid shift positive granules may be demonstrated⁷ and is consistent with the results obtained when the resected cyst lining is similarly stained for glycogen.⁵ Both of the fine needle aspirates from our case could not provide a definitive diagnosis due to the acellularity. Unfortunately, we also had not considered a parathyroid cyst and thus no fluid was saved for PTH assay.

Retrospectively, the parathyroid tissue present in the tissue block measured 8 x 4 mm. The upper limit of normal for a parathyroid gland is 6 x 4 mm. This then raises the possibility of a hyperplastic or adenomatous gland. In light of this patient being normocalcemic, hyperparathyroidism would have been unlikely. As for a non-functioning adenoma, the histology was less than conclusive. Cystic degeneration of an adenoma often lacks a cell lining.⁶ No other degenerative changes were present. There was no "rim of normal parathyroid

gland" nor was there the nuclear pleomorphism often seen in parathyroid adenomas. Foci of fat and clusters of oxyphil cells were identified. In Rosenberg's series of cysts which were not associated with hyperfunction, he describes the parathyroid tissue as appearing "somewhat hypercellular."⁶ We therefore conclude that our case represents that of a "true" parathyroid cyst.

SUMMARY

Although rare, parathyroid cyst should be considered in those patients presenting with a cystic neck mass, particularly if in an infra-thyroidal location. Recovery of clear watery fluid from fine needle aspiration offers presumptive evidence of a parathyroid cyst. The presence of PTH in the cyst fluid is considered diagnostic of a parathyroid cyst. FNA alone is cost effective and often curative therapy.

REFERENCES

1. Wang C, Vickery AL II, Maloof F: Large parathyroid cysts mimicking thyroid nodules. *Ann of Surg* 1972;175:448-453.
2. Albertson DA, Marshall RB, Jarman WT: Hypercalcemic crisis secondary to a functioning parathyroid cyst. *Am J of Surg* 1981;141:175-177.
3. Ginsberg J, Young JE, Walfish PG: Parathyroid cysts. *JAMA* 1987;240:1506-1507.
4. Miyauchi A, et al; Parathyroid cyst: analysis of the cyst fluid and ultrastructural observations. *Arch of Path & Lab Med* 1981;105:497-499.
5. Clark OH: Parathyroid cysts. *Am J of Surg* 1978;135:395-402.
6. Rosenberg J, Rocco O, Ludwig M, Pyrttek L: Parathyroid Cysts. *Am J of Surg* 1982;143:473-480.
7. Silverman JF, Khazanie PG, Norris HT, Fore WW: Parathyroid hormone assay of parathyroid cyst examined by fine needle aspiration biopsy. *Am J of Clinic Path* 1986;86:776-780.
8. Greene EI, Greene JM, Busch RC: Unusual manifestations after removal of parathyroid cyst. *JAMA* 1952;150:853-855.

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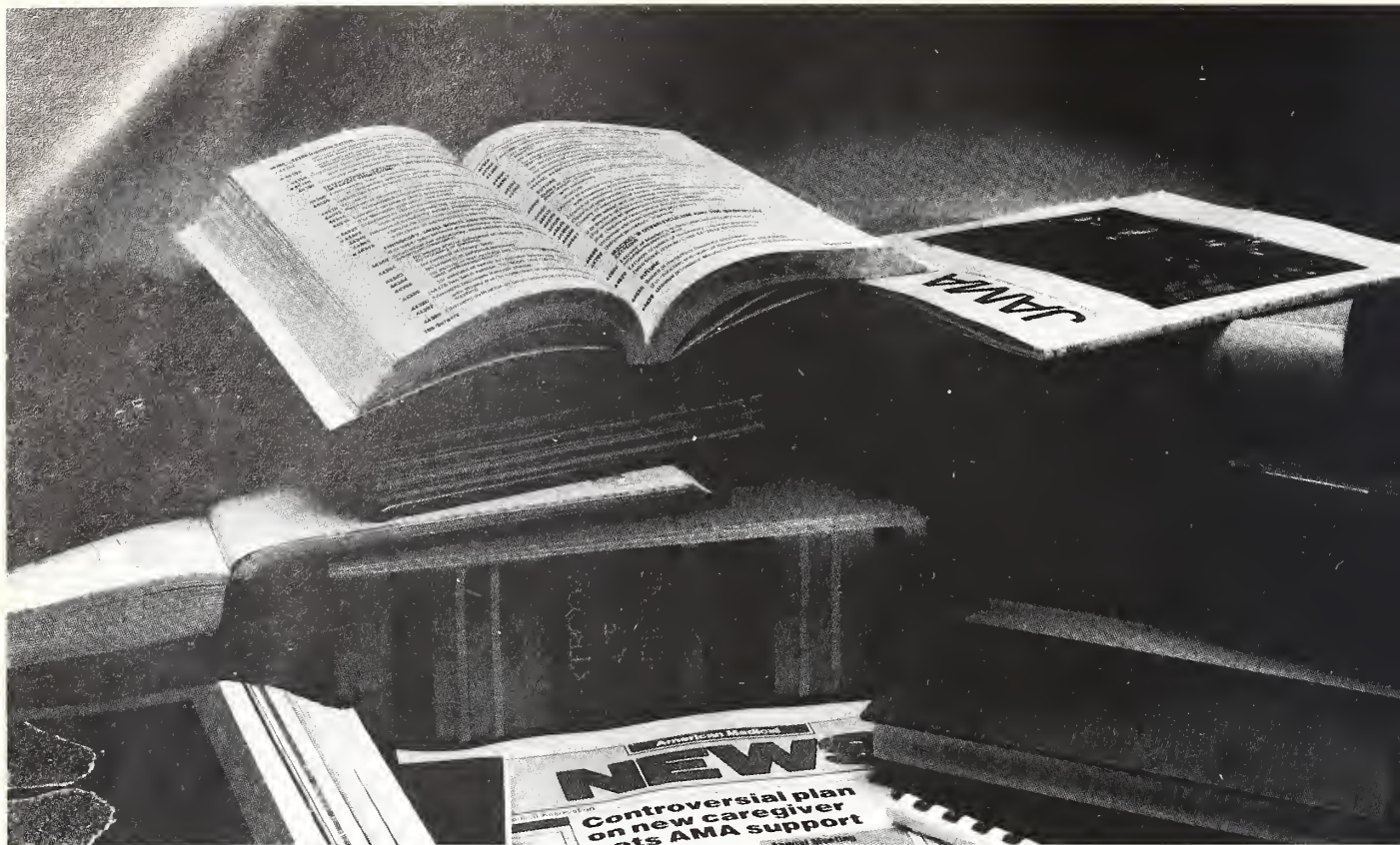
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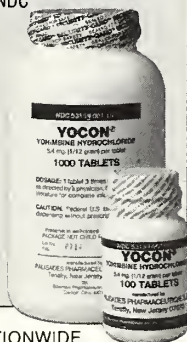
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References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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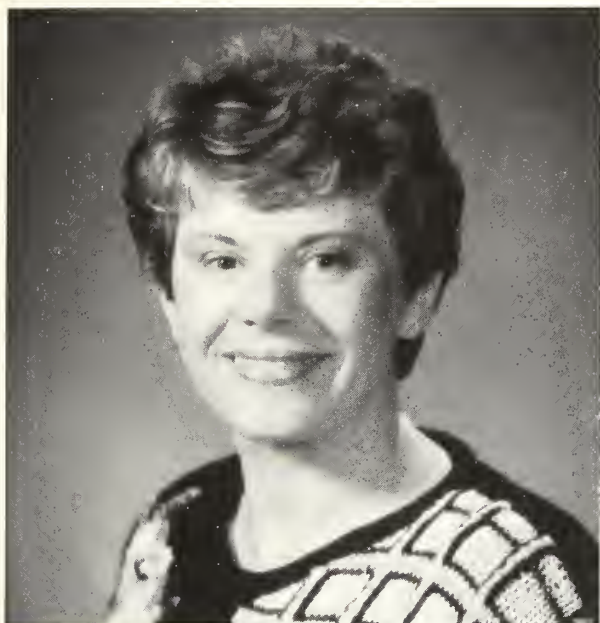
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Auxiliary News



Karen Pekas, President, South Dakota State Medical Association Auxiliary

Precipitation is in the forecast. It has been a dry winter, and we are all looking forward to the cleansing rains of April and May. Here we are wishing spring were here; wishing for warm days and cool nights, wishing for time to pass. But is this wise? Recently I received from one of the state auxiliaries a reprint of some words of wisdom by Robert J. Hastings. Please allow me to share them with you.

The Station

Tucked away in our subconscious is an idyllic vision.

We see ourselves on a long trip that spans the continent. We are traveling by train.

Out of the windows we drink in the passing scene of cars on nearby highways, of children waving at a crossing, of cattle grazing on a distant hillside, of smoke pouring from a power plant, of row upon row of corn and wheat, of flatlands and valleys, of mountains and rolling hillsides, of city skylines and village halls.

But uppermost in our minds is the final destination. On a certain day at a certain hour, we will pull into the station.

Bands will be playing and flags waving. Once we get there, so many wonderful dreams will come

true and the pieces of our lives will fit together like a completed jigsaw puzzle.

How restlessly we pace the aisles, damning the minutes for loitering - waiting, waiting, waiting for the station.

"When we reach the station, that will be it!" we cry.

"When I'm eighteen."

"When I buy a new 450SL Mercedes Benz!"

"When I put the last kid through college."

"When I have paid off the mortgage!"

"When I get a promotion."

"When I reach the age of retirement, I shall live happily ever after!"

Sooner or later we must realize there is no station, no one place to arrive at once and for all.

The true joy of life is the trip. The station is only a dream. It constantly outdistances us.

"Relish the moment" is a good motto, especially when coupled with Psalm 118:24: "This is the day which the Lord hath made; we will rejoice and be glad in it."

It isn't the burdens of today that drive men mad. It is the regrets over yesterday and the fear of tomorrow. Regret and fear are twin thieves who rob us of today.

So, stop pacing the aisles and counting the miles. Instead, climb more mountains, eat more ice cream, go barefoot more often, swim more rivers, watch more sunsets, laugh more, cry less.

Life must be lived as we go along. The station will come soon enough.

Have a wonderful month!

#

A handwritten signature in cursive script that reads "Karen Pekas". The signature is written in dark ink on a light background.

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Risk Management for Physicians

New Legislation Affecting Procedures for Health Care Consent

David A. Gerdes¹

The 1990 South Dakota Legislature passed, and the Governor approved, two bills having a significant impact upon consent for health care procedures on adults. Neither bill materially changes present practices, but both augment those practices and formalize procedures which were previously prevalent through custom and usage, as well as through the decisional law of the courts. Senate Bill 298² establishes health care consent procedures for adults and provides a mechanism for health care consent when those individuals who would ordinarily provide consent are unavailable. House Bill 1233³ clarifies present law to provide that a durable power of attorney may be used by an individual to designate a person to provide health care consent.

It is the purpose of this article to provide a general explanation of the provisions of these acts. They are rather comprehensive and somewhat detailed, and legal advice should be obtained whenever there is doubt as to the applicability of either act to a specific situation.

Health Care Consent Act

The Health Care Consent Act has essentially three purposes. It codifies health care consent procedures that have customarily been used, but have never been set forth in statute. Secondly, it provides a mechanism for obtaining a consent for medical procedures when no family member is available. Finally, it protects those giving consent, providers and practitioners from suit who in good faith rely upon a consent given, or a practitioner's conclusion that the patient is incapable of giving consent.

According to the Act, a person is incapable of giving informed consent if a court has declared him to be legally incompetent or legally incapacitated with the order so providing, if a court so determines in a proceeding under the Act, or if the attending physician acting alone or in consultation with another physician determines in good faith that the patient is incapable of giving informed consent. The latter determination by an attending physician is effective until a redetermination to the contrary is made by the attending physician or a court, and an attending physician may decline to make such a determination. However, any determination concerning a person's ability to provide informed con-

sent must be placed by the attending physician in the person's medical record, and signed by the attending physician.

The Act also establishes a hierarchy of persons entitled to give health care consent in the absence of a durable power of attorney for health care or the appointment of a guardian of the person (or where neither is available). Those entitled to give health care consent for the patient, in the following order, are:

- (1) the spouse, if not legally separated;
- (2) an adult child;
- (3) a parent;
- (4) an adult sibling;
- (5) a grandparent or an adult grandchild; and
- (6) an adult aunt or uncle or an adult niece or nephew.

Before incompetence or incapacity, a patient can disqualify any of the foregoing by a writing signed by the patient or by a notation in the patient's medical record made at his direction. A person authorized to make a health care decision may in writing designate another family member of the same or succeeding class to make a health care decision. Any person authorized to make a health care decision under the Act has the same right as the incapacitated patient to receive information and advice relevant to the proposed medical care. If two or more persons of the same class disagree on the appropriate health care decision, it may be submitted to the circuit court under the Act.

A person authorized to make a health care decision must be guided by the express wishes of the patient, if known, and must otherwise act in good faith and in the patient's best interest. The person making the health care decision may not arbitrarily refuse consent, and he must consider the recommendation of the attending physician, the decision the patient would have made, if known, and the best interests of the patient.

One purpose of the Act is to provide a simpler method of providing a health care decision where no authorized person is available, short of a full-blown guardianship. A petition may be submitted to the circuit court which may order health care, direct a health care decision, determine who is authorized to make the decision, appoint its own representative to make the decision, or order other appropriate relief. The court may only act if it appears that no authorized person is available to consent, and that other conditions exist which would not permit the decision to be made in a conventional manner. The court must also find that the relief granted is not inconsistent with the patient's express wishes, if known, and is otherwise in his best interest.

Under any circumstance covered by the Act, both health care providers and persons giving consent are protected from litigation or disciplinary action when they act in good faith and in accordance with the provisions of the Act. The Act does not authorize consent to any form of health care that is otherwise prohibited by state law, nor does it affect the law of abortion, sterilization or withdrawal or withholding of health care (that is, the Act is not intended to modify existing law on these subjects). Essentially the Act is designed to codify the law of South Dakota pertaining to consent for health care, and to provide a shorthand method of obtaining consent for health care where those who normally would give consent are not available. The Act does not affect treatment and care pertaining to mental health (presumably to be distinguished from physical health) at the human services centers and development centers.

Durable Power of Attorney for Health Care

The Durable Power of Attorney for Health Care Act deals with another aspect of medical consent. Ordinarily, a power of attorney ceases to be effective upon the incompetence of the principal (the person granting the power of attorney). Several years ago the legislature adopted legislation authorizing a durable power of attorney, which permitted a principal to grant a power of attorney not affected by the disability of the principal. A number of lawyers have used this Act for medical consent and living will purposes. The purpose of the current legislation was to clarify the lingering question of whether the durable power of attorney could in fact be used to authorize the attorney-in-fact to consent to, to reject, or to withdraw consent for medical procedures, treatment or intervention. Thus, under this Act, an individual may prospectively provide for the designation of a person authorized to consent to health care procedures upon the disability of the principal. The Health Care Consent Act, discussed above, specifically defers to this Act where a durable power of attorney for health care consent exists.

The attorney-in-fact named in a durable power of attorney for health care consent may make any health care decision for the principal which the principal would ordinarily be authorized to make. However, these decisions must be made in accordance with accepted medical practice, and the attorney-in-fact is required to consider the recommendation of the attending physician, the decision that the principal would have made in such a situation, if known, and the decision that would be in the best interest of the principal.

If the principal has decisional capacity as determined in good faith by the attending physician, the attorney-in-fact then is not authorized to make any health care decision. Also, the attending physician must proceed as if there were no designation of an attorney-in-fact if the attorney-in-fact is unavailable or refuses to make a health care decision. In this case, the Health Care Con-

sent Act would apply.

The authority of the attorney-in-fact is circumscribed in certain specific instances. He may not authorize the withholding or withdrawal of comfort care and nutrition or hydration.

However, artificial nutrition or hydration may be withheld or withdrawn if:

- (1) it is not needed for comfort care or the relief of pain and the attending physician reasonably believes that the principal's death will occur within approximately one week; or
- (2) it cannot be physically assimilated by the principal; or
- (3) the burden of providing it outweighs its benefit, burden referring to the provision of artificial nutrition or hydration itself and not to the quality of the continued life of the principal; or
- (4) it has clearly been refused by the principal prior to the loss of decisional capacity, in the power of attorney or by an expressed desire to others prior to the loss of decisional capacity.

The Act also prohibits the withdrawal of life sustaining treatment and artificial nutrition and hydration to a pregnant woman, unless to a reasonable degree of medical certainty these measures would not maintain the woman in such a way as to permit the continuing development and live birth of the unborn child, or would be physically harmful to the woman or prolong severe pain which cannot be alleviated by medication. The certification that life sustaining treatment would not be fruitful must be made in the woman's medical chart by the attending physician and one other physician that has examined the woman.

A durable power of attorney properly drafted under this Act would permit "living will" provisions dealing with most aspects of an individual's medical care. It would also appear to be sufficient, by proper reference, to authorize the donation of organs upon death from a person who is rendered incompetent.

Conclusion

During the legislative session, there was some reluctance and concern voiced by certain physicians concerning the merits of these two acts. I believe, however, that they were supported by a vast majority of physicians. The Health Care Consent Act is valuable in providing certainty to the question of who is authorized to consent for medical care for an incapacitated adult. It also provides a very useful mechanism for health care consent where no one is available to provide that consent. Under current law, this can only be done by a full-blown guardianship, and, quite frankly, a full-blown guardianship is really not necessary for that purpose in most instances. The Durable Power of Attorney for Health Care Act probably does little more than codify that which most lawyers thought was permissible under the statute authorizing durable powers of attorney.

However, it is beneficial in that it makes it clear under state statutory law that health care consent is a valid use of the durable power of attorney.

FOOTNOTES

1. Attorney at law, Pierre, South Dakota. General Counsel to the South Dakota State Medical Association.
2. The full text of Senate Bill 298 is as follows:
3. The full text of House Bill 1233 is as follows:

AN ACT

² ENTITLED, An Act to establish health care consent procedures for adults.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

Section 1. Terms used in this Act mean:

- (1) "Health care," any care, treatment, service or procedure to maintain, diagnose or treat a person's physical or mental condition. The term also includes admission to, and personal and custodial care provided by, a licensed health care facility as defined in SDCL 34-12-12.1;
- (2) "Health care decision," the determination of the health care to be provided to a person;
- (3) "Incapacitated person," any person who is incapable of giving informed consent to health care;
- (4) "Attending physician," the physician who at the time of reference has primary responsibility for the health care of a person;
- (5) "Health care provider," any licensed health care facility and any person, corporation or organization licensed, certified or otherwise authorized or permitted by law to administer health care;
- (6) "Person available to consent," any person who is authorized to make a health care decision for an incapacitated person and whose existence is known to the health care provider and who, in the good faith judgment of the health care provider, is reasonably available for consultation and is willing and competent to make an informed health care decision;
- (7) "Durable power of attorney for health care," an instrument executed pursuant to SDCL 59-7-2.1 that authorizes its attorney in fact to make a health care decision or to consent to health care on behalf of its principal.

Section 2. A health care decision by another is authorized under this Act for an adult person who is incapable of giving informed consent to health care. A person is incapable of giving informed consent to health care if:

- (1) He has been adjudged legally incompetent;
- (2) He has been adjudged legally incapacitated and the order of limited guardianship precludes him from consenting;
- (3) It has been so determined by the circuit court as provided in section 4 of this Act; or
- (4) It has been so determined in good faith by his attending physician, acting either alone or in consultation with another physician.

A determination by the attending physician that a person is incapable of giving informed consent is effective until there is a subsequent determination, either by the attending physician, or by the circuit court, that the person is either capable of giving informed consent or that the diagnosis

upon which the determination of incapacity was based is no longer valid. The attending physician may decline to make a determination as to either a person's capacity or incapacity to give informed consent and a health care provider may, but need not, rely on any such determination.

Any determination by an attending physician shall be in writing, shall be signed by the attending physician and shall be made a part of the person's medical record.

Section 3. In the absence of a durable power of attorney for health care or the appointment of a guardian of the person, or if neither the attorney in fact nor guardian is available to consent, a health care decision for an incapacitated person may be made by the following members of the incapacitated person's family who are available to consent, in the order stated:

- (1) The spouse, if not legally separated;
- (2) An adult child;
- (3) A parent;
- (4) An adult sibling;
- (5) A grandparent or an adult grandchild;
- (6) An adult aunt or uncle or an adult niece or nephew.

However, any person may, before a judicial adjudication of incompetence or incapacity, disqualify any member of his family from making a health care decision for him. The disqualification shall appear in a document signed by the person or may be made by a notation in his medical record, if made at his direction.

Any member of the incapacitated person's family may delegate the authority to make a health care decision to another family member in the same or succeeding class. The delegation shall be signed and may specify conditions on the authority delegated.

Any person authorized to make a health care decision for an incapacitated person shall be guided by the express wishes of the incapacitated person, if known, and shall otherwise act in good faith, in the incapacitated person's best interest, and may not arbitrarily refuse consent. Whenever making any health care decision for the incapacitated person, the person available to consent shall consider the recommendation of the attending physician, the decision the incapacitated person would have made if the incapacitated person then had decisional capacity, if known, and the decision that would be in the best interest of the incapacitated person.

Section 4. If the circuit court finds that a health care decision is required for a person and that the person is incapable of giving informed consent to health care, the circuit court may order health care, direct a health care decision, determine who is authorized to make the decision, appoint its own representative to make the decision, or order any other appropriate relief.

However, the circuit court may act only if it makes a further finding that:

- (1) There is no person available to consent; or
- (2) There are two or more persons in the same class available to consent and their decision is not unanimous; or
- (3) The person seeking to make the health care decision is not authorized to do so, is not reasonably available, is not able to make an informed decision, lacks capacity, or is not acting as required by section 3 of this Act; or
- (4) The health care provider has declined to follow the direction of a person authorized to make the health care decision; or

- (5) There are other substantial reasons for the circuit court's intervention; and
- (6) The relief granted is not inconsistent with the incapacitated person's express wishes, if known, and is otherwise in his best interest.

Section 5. A petition pursuant to section 4 of this Act may be filed by the incapacitated or alleged incapacitated person, by any person who is, or who might be, authorized to make a health care decision for him pursuant to section 3 of this Act, by a health care provider or by any other interested person. Any petition shall be filed in the circuit court where the incapacitated or alleged incapacitated person either resides or is present for purposes of receiving health care.

The petition shall state, or set forth by affidavit, medical records or other evidence attached thereto, all of the following so far as known to the petitioner:

- (1) The nature of the physical or mental condition which requires treatment;
- (2) The recommended course of treatment and its predictable or probable outcome;
- (3) The available alternatives, if any, to the recommended course of treatment;
- (4) The efforts made to obtain informed consent if the petition requests that the circuit court make a determination that an alleged incapacitated person is incapable of giving an informed consent; and
- (5) Such other matters as may be necessary or appropriate for the specific relief requested.

Reasonable notice of time and place of hearing on the petition shall be given to the incapacitated or alleged incapacitated person and to any other person as the court may direct. However, the court may modify or dispense with notice and hearing if it finds that the delay may have a serious adverse effect upon the health of the incapacitated or alleged incapacitated person.

The court may appoint a guardian ad litem to make an investigation, report and recommendation as to the relief requested in the petition, or on any other matters as the court may direct.

Section 6. The informed consent of the person authorized under this Act to make a health care decision shall, for all purposes, be deemed the informed consent of the incapacitated person. The person has the same right as does the incapacitated person to receive information relevant to the proposed health care, and to receive, review and consent to the disclosure of medical records. Disclosure of information regarding contemplated health care to a person authorized to make a health care decision for an incapacitated person is not a waiver of any evidentiary privilege or of a right to assert confidentiality.

Section 7. A health care provider acting or declining to act in reliance on a health care decision by a person whom the health care provider believes in good faith is authorized by this Act to make a health care decision for another is not subject to criminal prosecution, civil liability or professional disciplinary action on the ground that the person either had or did not have authority, capacity or sufficient interest to make an informed health care decision or for disclosing to the person medical records or other information.

A health care provider who believes in good faith that a person is incapable of giving informed consent for himself or lacks authority, capacity or sufficient interest to make an informed health care decision for another is not subject to criminal prosecution, civil liability or professional discipli-

nary action for failing to follow that person's direction or for making such determination.

A health care provider who in good faith believes that a person is capable of giving informed consent for his own health care is not subject to criminal prosecution, civil liability or professional disciplinary action for following that person's direction or for making such determination.

A person who in good faith believes that he is authorized under this Act to make an informed health care decision for another is not subject to criminal prosecution or civil liability on the ground that he lacked authority or capacity.

Section 8. The provisions of this Act do not:

- (1) Authorize consent to health care that is prohibited by the law of this state;
- (2) Except as provided in this Act, affect the law of this state concerning:
 - (a) The standard of care of a health care provider;
 - (b) When consent is required for health care;
 - (c) Notice to others of proposed health care;
 - (d) Other authorized methods of consent;
 - (e) Health care in an emergency without consent; or
 - (f) Informed consent for health care;
- (3) Prevent a person authorized to make a health care decision from consenting to health care administered in good faith pursuant to the religious tenets of the incapacitated adult;
- (4) In any manner limit the powers and discretions that may be granted to an attorney in fact under an instrument executed pursuant to SDCL 59-7-2.1; or
- (5) Require that a guardian of the person be appointed for an incapacitated person before a health care decision can be made;
- (6) Affect the law of abortion or sterilization in this state, nor the law governing the withdrawal or withholding of health care, or of any care, treatment, service or procedure necessary to prolong or sustain life;
- (7) Affect treatment and care pertaining to mental health at the human services centers and developmental centers.

AN ACT

³ ENTITLED, An Act to clarify certain provisions concerning the authority of an attorney in fact or agent after the disability of the principal.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

Section 1. That SDCL 59-7-2.1 be amended to read as follows:

59-7-2.1. Notwithstanding SDCL 59-7-2, if a principal designates another as his attorney in fact or agent by a written power of attorney which contains the words "This power of attorney shall not be affected by disability of the principal," or "This power of attorney shall become effective upon the disability of the principal," or similar words showing the intent of the principal that the authority conferred is exercisable notwithstanding his disability, the authority of the attorney in fact or agent is exercisable by him as provided in the power on behalf of the principal notwithstanding any later disability or incapacity of the principal or later uncertainty as to whether or not the principal is dead or alive. A power of attorney granted pursuant to this section may authorize the attorney-in-fact to consent to, to reject, or to withdraw consent for medical procedures, treatment or intervention.

Section 2. That chapter 59-7 be amended by adding there-to a new section to read as follows:

The attorney-in-fact or agent may make any health care decisions for the principal which the principal could make individually if he had decisional capacity. However, all such decisions shall be made in accordance with accepted medical practice. Whenever making any health care decision for the principal, the attorney-in-fact or agent shall consider the recommendation of the attending physician, the decision that the principal would have made if the principal then had decisional capacity, if known, and the decision that would be in the best interest of the principal.

Section 3. That chapter 59-7 be amended by adding there-to a new section to read as follows:

The attorney-in-fact or agent may not make a health care decision in any situation in which the principal's attending physician has determined in good faith that the principal has decisional capacity. The attending physician shall proceed as if there were no designation if the attorney-in-fact or agent is unavailable or refuses to make a health care decision.

Section 4. That chapter 59-7 be amended by adding there-to a new section to read as follows:

The attorney-in-fact or agent may not authorize the withholding or withdrawal from the principal of comfort care and nutrition or hydration. However, artificial nutrition or hydration may be withheld or withdrawn if:

- (1) Artificial nutrition or hydration is not needed for comfort care or the relief of pain and the attending physician reasonably believes that the principal's death will occur within approximately one week; or
- (2) Artificial nutrition or hydration cannot be physically assimilated by the principal; or
- (3) The burden of providing artificial nutrition or hydration outweighs its benefit, provided that the determination of burden refers to the provision of artificial nutrition or hydration itself and not to the quality of the continued life of the principal; or
- (4) There is clear and convincing evidence that artificial nutrition or hydration was refused by the person prior to loss of decisional capacity; or the power of attorney directs that artificial nutrition or hydration not be given or specifically authorizes the attorney-in-fact or agent to make that decision; or prior to the loss of decisional capacity there is clear and convincing evidence that the principal expressed the desire that artificial nutrition or hydration not be given.

Even in the exceptions listed in subdivisions (1), (2), (3) and (4) of this section, artificial nutrition or hydration may not be withheld or withdrawn if it is needed for comfort or the relief of pain.

Section 5. That chapter 59-7 be amended by adding there-to a new section to read as follows:

Notwithstanding the designation of a health care attorney-in-fact or agent, life-sustaining treatment and artificial nutrition and hydration shall be provided to a pregnant woman unless, to a reasonable degree of medical certainty, as certified on the woman's medical chart by the attending physician and one other physician who has examined the woman, such procedures will not maintain the woman in such a way as to permit the continuing development and live birth of the unborn child or will be physically harmful to the woman or prolong severe pain which cannot be alleviated by medication.

#

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At a recent ceremony, the State of South Dakota presented the Centennial Certificate to the South Dakota State Medical Association for its 100 years of corporate service to South Dakota. Pictured is **Robert D.**



Johnson, Executive Secretary of SDSMA accepting the plaque from Joyce Hazeltine, Secretary of State.

Governor George Mickelson appointed **Loren Amundson, MD**, Sioux Falls, as the first director of the South Dakota Office of Rural Health. The office was created by the governor to improve delivery of health services in rural South Dakota.

Dr. Amundson will work as director on a part-time basis and the remainder of his time will be given to his position as Professor of Family Medicine at the USD School of Medicine. A native of Colton, Dr. Amundson has practiced medicine in South Dakota since 1959. He has served as associate director of the Family Practice Residency Training Program in Sioux Falls since 1974, and was named South Dakota Family Doctor of the Year in 1989.

Warren Anderson, MD, of Sioux Falls, died recently in Sun City, AZ, at the age of 70. He was born in Willmar, MN. Dr. Anderson received his medical degree at the University of Minnesota Medical School in 1942; completed an internship at the Minneapolis General Hospital in 1943; and served in the Army Medical Corps from 1943 to 1946.

He married Lois Lyders in 1945, in Minneapolis, practiced pediatrics in Sioux Falls from 1949 to 1978 when he retired. He was an associate professor of pediatrics at the University of South Dakota Medical School for several years.

A member of Our Savior's Lutheran Church, Dr. Anderson was also the public school physician for several years and he served on the board of directors of Volunteers of American and Lutheran Family Services.

Survivors include his wife; two sons: George, Minneapolis; and Arnie, White Bear Lake, MN; one daughter, Mrs Ken (Karen) Hannah, Stillwater, MN; and seven grandchildren.

Marlys Porter, wife of Dr. Richard Porter, of Yankton, has been appointed to the Private Industry Council by Governor Mickelson. The appointment is effective immediately and expires on January 1, 1995.

Dr. Richard N. Smith, of Huron, has successfully completed a certification examination administered by the Arthroscopy Board of North America. The examination is the first of its kind offered in the United States for the certification of arthroscopists. This exam and one he successfully completed in 1988, given by the American College of Sports Medicine, are newly developed to identify specialists in the field of sports medicine.

Sioux Falls family physician, **Jerry L. Walton, MD** is the 1990 South Dakota Family Doctor of the Year. Dr. Walton attended USD School of Medicine's two-year medical school and received his medical degree from Texas Southwestern Medical School in Dallas. He interned at Sioux Valley Hospital in Sioux Falls and then practiced in Martin for six years. He has been a partner in Family Practice Physicians since 1971.

Dr. Walton is active in many organizations and is well known for his informative talk show "Medical Line" on KSOO radio.

Jose Villa, MD, 72, formerly of Freeman, died recently at his home in Mackinaw, IL. He was born in Manila, the Philippines, and married Neysa Thames in 1950. He was educated in Manila and graduated from the medical school at the University of Santo Tomas. He completed a two year rotating residency at McKennan Hospital in 1949, and completed a residency in Dayton, Ohio. He then began practice in Iroquois, where he was the first physician in South Dakota to perform the complete blood exchange of an rh negative newborn baby.

He continued general surgery and obstetrics/gynecology in the Family Practice Clinic in Freeman. Along with his family he received the Scouting Family of the Year award in 1964. He was a member of St Mary's Catholic Church in Marion.

Survivors include his wife; five sons: George, Florence, SC; Thomas, New Orleans, LA; Joseph, Marquette, MI and Timothy and Frederick, both of the North Pole, Alaska; five daughters, Cecilia Werts, Spencer, IA; Theresa, Captain Cook, HI; Elizabeth Aman, Chattanooga, TN; Juanita of Sioux Falls and Antonita of Kailua-Kona, HI; 18 grandchildren; one brother and two sisters living in the Philippines.

Future Meetings

May

Ambulatory Surgery '90, Anaheim Marriott, Anaheim, CA, May 2-5. Fee: \$495. Contact: Federated Ambulatory Surgery Assn, 700 N Fairfax St, #520, Alexandria, VA 22314. Phone: (703) 836-8808.

Second Annual Black Hills Cardiac Symposium "Strategies in Primary Cardiac Care", Howard Johnson Motor Lodge, Rapid City, SD, May 4. 6.5 hrs AMA Category I credit. Contact: Lani White, Dir, Health Educ Dept, Rapid City Reg Hosp, PO Box 6000, Rapid City, SD 57709. Phone: (605) 341-8015.

Peer Review in Today's Health Care Environment, Palmer House, Chicago, IL, May 9. Fee: \$325. 7 hrs AMA Category I credit. Contact: Joint Commission on Accreditation of Healthcare Organizations, 875 N Michigan Ave, Chicago, IL 60611-1846. Phone: (312) 642-6061.

The Ethics of American Health Care, Marriott Long Wharf, Boston, MA, May 18-20. Fee: \$120. 4 hrs AMA Category I credit. Contact: MMS Annual Meeting, PO Box 9155, Waltham, MA 02254-9155. Phone: 1-800-322-2303, ext. 1342.

Medical Staff Issues, Westin Hotel, Seattle, WA, May 18-20. Fee: \$450. 11 hrs CME credit. Contact: Joint Commission on Accreditation of Healthcare Organizations, 875 N Michigan Ave, Chicago, IL 60611-1846. Phone: (312) 649-8100.

1990 South Dakota Rural Health Conference, Ramkota River Centre, Pierre, SD, May 23-25. Contact: SD Office of Rural Health, 523 E Capitol, Pierre, SD 57501. Phone: (605) 773-3693.

June

Clinical Pediatrics, Westin Hotel, Washington, DC, June 22-24. Fee: \$365. 16 hrs AMA Category I credit. Contact: Am Academy of Peds, Div of Cont Educ, PO Box 927, Elk Grove Village, IL 60009-0927. Phone: 1-800-433-9016, ext 7657.

Thirteenth Annual Black Hills Seminar on Advances in Clinical Pediatrics, Golden Hills Resort, Lead, SD, June 27-29. Contact: Debbie Meyer, Dept. of Peds, USD School of Med, PO Box 5039, Sioux Falls, SD 57117-5039. Phone: (605) 333-7178.

July

Annual Meeting of American Academy of Sports Physicians, Seattle, WA in conjunction with the Goodwill Games, July 27-30. Contact: Janie Zimmer, Academy Coord, 17113 Gledhill St, Northridge, CA 91325.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

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The South Dakota Journal of Medicine thanks these companies for advertising in this Journal.



VASOTEC[®]

(ENALAPRIL MALEATE) MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC[®] (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: **Angioedema:** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been continued to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to the doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: **General:** **Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hypertension: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects will be minimized by either discontinuing the diuretic or increasing the intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-channel blockers, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (33 times the maximum human dose). Fetal toxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril. Fetal toxicity did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC[®] (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients; (see WARNINGS, Hypotension), pulmonary embolism and infarction; pulmonary edema, rhythm disturbances, atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION);

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: **Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d. then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380. JVS61R(2/89)

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VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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Minimal potential for drug interactions

*Unlike cimetidine and ranitidine,¹
Axid does not inhibit the cytochrome
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Swift and effective H₂-antagonist therapy

- Most patients experience
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- Heals duodenal ulcer
rapidly and effectively^{4,5}
- Dosage for adults with active
duodenal ulcer is 300 mg once nightly
(150 mg b.i.d. is also available)

References

1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.



AXID® nizatidine capsules

Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H₂-receptor antagonists.

Precautions: General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlorazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported. **Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request.

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South Dakota Foundation for Medical Care

SOUTH DAKOTA FOUNDATION FOR MEDICAL CARE PSYCHIATRIC GENERIC QUALITY SCREENS

South Dakota Foundation for Medical Care (SDFMC) is required by HCFA to review Medicare psychiatric inpatient stays with a newly developed psychiatric generic quality screen. This review includes Medicare psychiatric stays in acute psychiatric units and/or hospitals and psychiatric acute care provided in the hospital but outside the psychiatric unit where the principal diagnosis is coded ICD-9-CM 290 to 319.

ICD-9-CM codes 290 to 319 contain conditions classified as psychoses, neurotic, personality, and other mental disorders including non-psychiatric organic brain syndrome.

The following is a listing of the psychiatric generic screens. Specific interpretive review guidelines will be distributed to all hospitals and physicians in the very near future.

1. Inadequate psychiatric assessment
2. Inadequate treatment planning
3. Lack of ongoing monitoring and evaluation of patient status to identify conditions or changes in conditions which potentially could lead to patient harm and/or deterioration
4. Medications
 - a. Inadequate/inappropriate use
 - b. Failure to monitor use
 - c. Major adverse drug reaction or medication error with a serious potential for harm, or results in special measures to correct
5. Harm/trauma suffered in the hospital
 - a. Attempted suicide, self-inflicted injury
 - b. Fall
 - c. Seizure
 - d. Loss of consciousness
 - e. Other serious or potentially serious complication
6. Restraints (including physical and mechanical)
 - a. Inappropriate use of restraints
 - b. Unsafe use of restraints
7. Seclusion
 - a. Inappropriate use of seclusion
 - b. Unsafe use of seclusion
8. Electroconvulsive therapy (ECT)
 - a. Inappropriate use of ECT
 - b. Unsafe use of ECT
9. Discharge planning
10. Deaths

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SCIENTIFIC ARTICLES

Angular Deformities of the Tibia in
Children: A Review of Three Cases
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NEXT MONTH

Acute Theophylline Overdose Treated with Whole
Bowel Irrigation

OBRA - Its Effect on the Mentally Ill in South Dakota

About the Cover

Throughout the summer, the Sioux Indian don native costumes and share their customs and culture at annual pow wows held all over South Dakota. (Photo courtesy of the South Dakota Department of Tourism)

CONTRIBUTORS NEEDED!

During the last four years the South Dakota Medical School Endowment Association has granted over 260 loans totaling nearly \$135,000. These low interest (6%) loans go to medical students who are attending the University of South Dakota School of Medicine. The needs of these medical students continue to increase. To meet these needs the Endowment must have continued growth in both the size and numbers of donations.

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Angular Deformities of the Tibia in Children: A Review of Three Cases

Richard G. Briggs, BA¹
Walter O. Carlson, MD²

ABSTRACT

Children born with prominent bowing of the tibia are an obvious concern to parents and physicians. Managing these congenital angulations requires early and accurate diagnosis. Classification is based on the direction of the angulation and its associated pathology. The three basic classes of tibial angulations commonly accepted are based on the work of Heyman and Herndon.^{10,11} The success of treating these children depends on the type and severity of the angulation. This article presents three cases of tibial bowing and describes the treatment and prognosis of each.

Children with congenital angular deformities of the tibia are an obvious concern to both parents and physicians. The severe angulation of the tibia present at birth, often worries parents that it will result in a permanent disability. In order to manage these patients, one must recognize the type of angulation present and then select an appropriate course of treatment. There are many treatment options available, the degree of success for each varies according to the type and severity of the angulation.

Classification of congenital angulations of the tibia is based upon the direction of the deformity and its associated pathology. Heyman and Herndon^{10,11} were the first to document and categorize congenital tibial angulations. Their work has resulted in three basic classifications for angular deformities of the tibia:

Group I: Anterolateral bowing, associated with pseudarthrosis and/or neurofibromatosis.

Group II: Anterior bowing associated with the shortening of calve muscles and severe talipes equinovarus with various other skeletal and anatomic abnormalities.

Group III: Postcromedial bowing associated with talipes calcaneovalgus.

The etiology of angular deformities of the tibia is unknown though abnormal fetal positioning, intrauterine tibial fractures, and defective chondro-osseous

development have all been implicated.^{5,10,11} The insult to the embryo probably occurs in the fifth week of development. During this time damage to mesodermal structures would result in a permanent deformity to future chondro-osseous structures of the leg.⁷

Anterolateral bowing of the tibia is more common, shows greater pathology and can be a serious medical condition. The bowing is found at the middle and lower thirds of the tibia with the fibula showing a similar bow and pathology.¹⁵ The bone is sclerotic and the medullary canal reduced. There is a high propensity for pathologic fracture, and this condition is often seen in patients with neurofibromatosis.⁴

The following case presents anterolateral bowing of the tibia in a patient diagnosed with neurofibromatosis.

Case I:

This one year old female was referred to our clinic diagnosed as having neurofibromatosis and congenital pseudarthrosis. Physical examination revealed anterolateral bowing of her left leg and a number of café au lait spots on her skin. The rest of her examination was unremarkable. Review of the patient's history indicated that her mother was also diagnosed with neurofibromatosis.

The initial x-rays sent with this patient displayed anterior and lateral bowing of the left tibia and fibula. The narrowed medullary canal was consistent with the prefracture stage of pseudarthrosis.

At that time she was placed in a short leg orthosis. On her last visit to the referring physician she had fractured through her pseudarthrosis. Her mother denied knowledge of when the fracture may have occurred, and claimed the patient had faithfully worn her brace.

Upon her first visit to our clinic, x-rays were taken showing a severe angulation of the tibia and fibula, and non-union

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at the site of the fracture (Figure 1). She was fit with an ankle hinge brace which provided increased mobility and protection. In succeeding visits it became apparent that the fracture was not healing properly and the tibia and fibula were continuing to angulate. (Figure 2) We felt it was necessary to surgically fuse the fracture providing a stable union for uniform growth.



Figure 1

A one year old female with anterolateral bowing of the tibia, associated with neurofibromatosis.

Pseudarthrosis is a common occurrence among patients with neurofibromatosis. It has been estimated that 55% of patients with pseudarthrosis of the tibia have neurofibromatosis.^{4,9,17-19} The lesions of the tibia usually occur before the age of two and may precede café au lait spots.⁴ The high association of these two entities should cause the physician to be suspect of neurofibromatosis when anterolateral bowing is present.

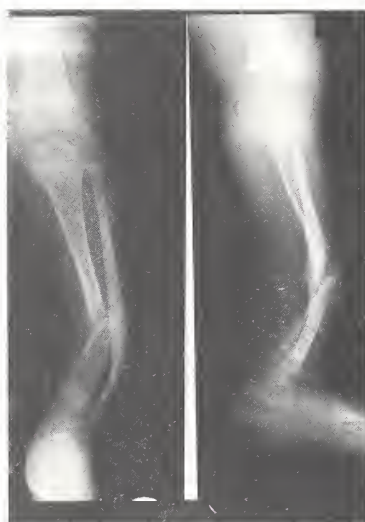


Figure 2

Same patient as in figure 1, 11 months later.

The initial treatment for patients presenting with an anterolateral bowing of the tibia consists of preventing fracture. This is especially important for patients with pseudarthrosis, who have a great propensity for fracture and nonunion.

When fracture occurs, treatment consists of obtaining a solid union at the site of the pseudarthrosis and maintaining it throughout growth. Treatment has focused on internal fixation and bone grafting. The type of fixation and bone graft used is variable, suggesting that none have proven very successful in these cases.

The most recent advances in treatment are the application of microvascular bone grafts and augmentation of surgical procedures with electrical stimulation.^{1,2,6,8,14,21-23} These procedures have shown promising results, although the non-union created by

pseudarthrosis remains a challenging problem for the orthopedist. Long term bracing remains a part of all surgical treatments protecting the bony union and preventing refracture and subsequent pseudarthrosis.

Amputation as a treatment option cannot be eliminated in these patients because of the great difficulty obtaining a solid fusion. The Syme amputation is the technique of choice when there are multiple unsuccessful fusion attempts, a significant limb length discrepancy, and resulting functional disabilities.^{13,16}

Posteromedial bowing of the tibia is less common than anterolateral bowing. These angular deformities are not associated with skeletal pathology and generally correct spontaneously. The clinical presentation of posteromedial bowing is obvious at birth. Posterior and medial angulations usually occur at the middle and distal thirds of both the tibia and fibula.^{10,11} The foot displays a marked calcaneus deformity with limited plantar flexion.⁷ The anterior crural muscles are contracted with a slight decrease in muscle mass.^{10,12} A dimple is often found at the apex of the angulation.^{3,10,20}

Posteromedial bowing of the tibia is a unilateral deformity occurring equally on either side and showing no sexual predilection. Radiographic evaluation of effected tibiae indicate a thickening of the lateral cortices and distally broadened shafts.^{10,11} The intramedullary canal is poorly developed or obliterated by deposition of sclerotic bone.⁷ The bowed limb is shorter than the unaffected one, with the discrepancy ranging from 1.0 to 2.0 cm at birth.^{12,20} There is an established correlation between the degree of angulation initially and the ultimate leg length discrepancy.^{12,20} The difference in leg length can become significant and may require surgical equalization.¹²

The following case is that of a child who presented with a posteromedial bowing of her right tibia and fibula.

Case II

This patient presented to our clinic five days after her birth with posteromedial bowing of her right leg. Physical examination revealed a leg length discrepancy resulting from the posteromedial angulation. The right foot displayed a calcaneovalgus position with limited plantar flexion. The anterior crural muscles were significantly tighter on the affected leg, and a dimple was noted at the site of angulation. The rest of the examination was unremarkable.

AP and lateral x-rays were taken showing marked posteromedial bowing of both the right tibia and fibula. (Figures 3 and 4) The intramedullary canal was reduced, and the ends of the shafts were broadened. There was no evidence of pseudarthrosis or other anomalies present, decreasing the likelihood of a fracture. The patient was monitored in hope that the angulation would spontaneously correct itself. In succeeding months the bowing diminished and the leg has now almost completely straightened. (Figures 5 and 6) We will continue to monitor this patient to determine if a functional leg length discrepancy will occur, and whether a leg equalization procedure will become necessary.



Figure 3

A five day old female with posteromedial bowing of the tibia and fibula. AP view.

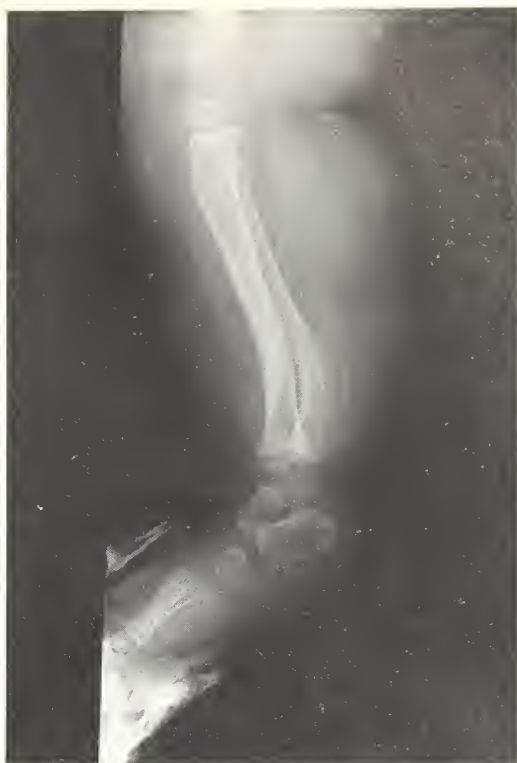


Figure 4

Same patient as in figure 3, lateral view.



Figure 5

Same patient as in figures 3 and 4, 30 months later. AP view.



Figure 6

Same patient as in figure 5, lateral view.

Occasionally a physician may find an angular deformity of the tibia that does not fall into a particular group or subgroup. Anterolateral angulations generally require surgical intervention to correct the bowing, while posteromedial angulations are self correcting. The next case presented is that of a patient with an anterolateral bow that spontaneously corrected.

Case III

This patient was a two week old female referred to our clinic for bowing of the left lower leg. Physical examination revealed an anterolateral angulation of the left leg. The foot was in a plantar flexed position and a dimple was noted at the apex of the angulation. No signs of neurofibromatosis or other developmental deformities were present. The patient's history indicated no familial record of neurofibromatosis or other anomalies which could predispose her to tibial angulations.

X-rays revealed an anterolateral bow of the left tibia. (Figure 7) The intramedullary canal of the tibial shaft was obliterated at the apex of the angulation. The fibula did not display the same angulation as the tibia. This is an unusual finding because in most cases of anterolateral bowing, the fibula possesses a similar bow and pathology.

We decided to cautiously follow the progression of her angulation over the next few months. To our surprise the angulation began spontaneously correcting itself. Succeeding x-rays showed dramatic improvement, (Figures 8 and 9), and during the course of the next few years the tibia straightened nearly completely. The patient has a leg length discrepancy which is being corrected with a shoe

lift.

We will follow her progress to determine a final length discrepancy, and whether there is need for a future equalization procedure.

CONCLUSION

Successfully treating angular deformities of the tibia is predicated on early and accurate diagnosis. Recognizing the type of tibial bowing a child presents with has

significant treatment and prognostic implications. The classification method developed by Heyman and Herndon^{10,11} is a useful diagnostic tool. Identifying the type of angulation present determines the course of treatment and the probable prognosis, both help alleviate the concerns of parents and children.

REFERENCES

1. Basset CAL, Caulo N, Kort J: Congenital "pseudarthrosis" of the tibia: treatment with pulsing electromagnetic fields. *Clin Orthop* 1981;154:136.
2. Brighton CT, Friedenberg ZB, Zemsky LM, et al: Direct current stimulation of non union and congenital pseudarthrosis. *J Bone Joint Surg* 1975;57A:368.
3. Caffey J: Prenatal bowing and thickening of tubular bones with multiple cutaneous dimples in arms and legs.
4. Crawford AH: Neurofibromatosis in the pediatric patient. *Ortho Clin of N Am* 1978;9;1:11-23.
5. Dawson GR: Intrauterine fractures of the tibia and fibula. *J Bone Joint Surg* 1949;31A:406.
6. Gordon L, Weulker N, Jergesen H: Vascularized fibular grafting for treatment of congenital pseudarthrosis of the tibia. *Orthopedics* 1986;9:825.
7. Grogan D, Love S, Ogden J: Congenital malformations of the lower extremities. *Orthop Clin N Am* 1987;18:537.
8. Hagan KF, Bunke HJ: Treatment of congenital pseudarthrosis of the tibia with free vascularized bone graft. *Clin Ortho* 1982;166:34.
9. Harding K: Congenital anterior bowing of the tibia. The significance of the difference of the different types in relation to pseudarthrosis. *Ann Roy Coll Surg* 1972;51:17-30.
10. Heyman CH, Herndon CH: Congenital posterior angulation of the tibia. *J Bone Joint Surg* 1949;31A:571-580.
11. Heyman CH, Herndon CH, Heiple KG: Congenital posterior angulation of the tibia with talipes calcaneus: a long term study of eleven patients. *J Bone Joint Surg* 1959;41A:476.

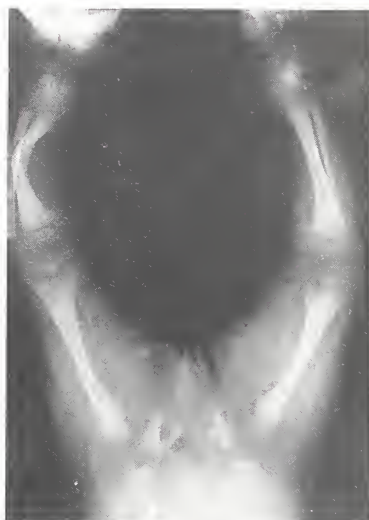


Figure 7

A two week old female with anterolateral bowing of the tibia.



Figure 8

Same patient as in figure 7, 15 months later.

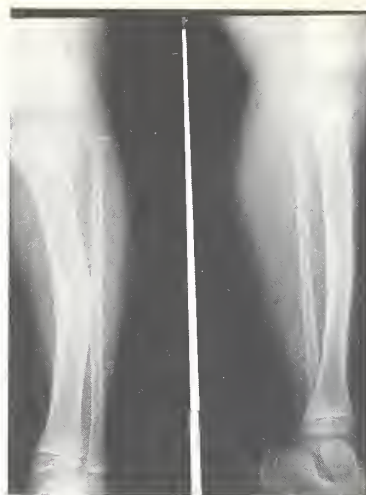


Figure 9

Same patient as in figure 8, three years later, note the spontaneous resolution.

12. Hoffman A, Wenger DR: Posterior medial bowing of the tibia. *J Bone Joint Surg* 1981;63A:384-388 March.
13. Jacobsen ST, Crawford AH, Miller EA, et al: the Syme amputation in patients with pseudarthrosis of the tibia. *J Bone Joint Surg* 1983;65A:533.
14. Leunig PC: Congenital pseudarthrosis of the tibia: three cases treated by free vascularized iliac crest graft. *Clin Orthop* 1983;175:45.
15. Lovell W, Winter R: *Pediatric Orthopaedics*, vol II, JB Lippincott Co, 1978.
16. McCarthy RE: Amputation for congenital pseudarthrosis of the tibia. Indications and techniques. *Clin Orthop* 1982;166:58.
17. McFarland B: Pseudarthrosis of the tibia in childhood. *J Bone Joint Surg* 1951;33B:36-46.
18. McKellar CC: Congenital pseudarthrosis of the tibia - treatment by tibial lengthening and corrective osteotomy seven years after successful bone graft. A case report. *J Bone Joint Surg* 1973;55A:193-196.
19. Moore JR: Congenital pseudarthrosis of the tibia. Instructional Course Lectures. Ann Arbor, JW Edward 1957 vol 14, pp. 222-237.
20. Pappas AM: Congenital Posteromedial angulation of the tibia and fibula. *J Ped Ortho* 1984;4:525.
21. Patterson DC, Simonis RB: Electrical stimulation in the treatment of pseudarthrosis of the tibia. *J Bone Joint Surg* 1985;67B:454.
22. Pho RWH, Levack B, Satku K, et al: Free vascularized fibula graft in the treatment of congenital pseudarthrosis. *J Bone Joint Surg* 1985;67B:64.
23. Sharrard WJW: Treatment of congenital and infantile pseudarthrosis of the tibia with pulsing electromagnetic fields. *Ortho Clin N Am* 1984;15:143.

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Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

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Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

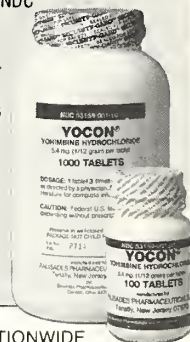
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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Council Meeting Highlights

The Council met on Friday, March 30, 1990, at the Holiday Inn City Center, Sioux Falls. Following are highlights from that meeting for your information.

1. **MEDICAL DIRECTOR, SD HEALTH DEPARTMENT.** Dr Sandra Van Gerpen was introduced as the new Medical Director for the Department of Health. Previously Dr Van Gerpen had practiced in Rapid City.
2. **CONTINUING MEDICAL EDUCATION COMMITTEE.** The ACCME issued approval of South Dakota's interim report for accrediting programs in the state. It was noted that both the Brookings Hospital and the Aberdeen Hospital have indicated they will be applying for accreditation. The Committee established an initial application fee of \$250 with an annual fee of \$200 for all accredited institutions in the state.
3. **UNIFIED MEMBERSHIP.** During the past year the Council has been studying the possibility of unified membership which means a member of the State Association also must be a member of the American Medical Association. It was decided to submit to the House of Delegates a resolution calling for an educational program to increase membership in the AMA with the goal of unified membership by 1995.
4. **PURCHASE OF MEDICAL BUILDING.** The Council authorized the purchase of the Brzica Medical Building and this has been accomplished.

This gives the State Medical Association three-fourths of the block where the executive office is located. For the present time the Association will continue to rent the office space to physicians and dentists.

5. **HONORARY LIFE MEMBERS.** Dr Robert Quinn of Spearfish and Dr Charles Swanson of Pierre were elected to honorary life membership in the State Medical Association.
6. **ENDOWMENT ASSOCIATION BOARD OF DIRECTORS.** The Council re-elected the following physicians to serve a one year term on the Board of Directors of the South Dakota Medical School Endowment Association: Joseph Hamm, MD; Warren Jones, MD; Howard Saylor, MD; Bruce Lushbough, MD; T. H. Sattler, MD; Robert Giebink, MD; and Bruce Allen, MD.
7. **PUBLIC RELATIONS PROGRAM.** A local consulting firm prepared an outline for a long-term public relations program on behalf of physicians. This included several proposals and was referred to the Commission on Internal Affairs, Communications and Liaison for study and recommendation.

The next Council meetings will be held in conjunction with the 1990 Annual Meeting. The first meeting will be on Wednesday, May 30, and the second one on Saturday, June 2, at the Howard Johnson Motor Lodge, Rapid City. #

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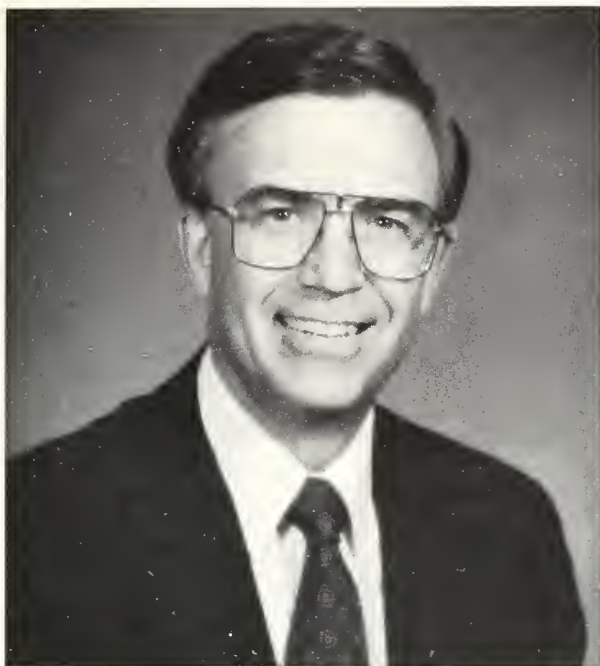
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President's Page



Michael W. Pekas, MD, President, South Dakota State Medical Association

So Long, Farewell, Adios & Thank You

This will be my last President's Page and as my presidential year wraps up, I would like to share a wrap up of sorts with you, if I may. Writing the President's Page once a month is probably the biggest worry that an incoming president faces, but as I told Jerry Eckrich, your president-elect, for me it has been an enjoyable task because it allows your president a forum in which he can present his views on different subjects of his choice as the year progresses. This past year I have covered quite a few different subjects including Medicare and the RBRVS, political action (SoDaPAC/AMPAC), physician community involvement, physician-patient relationships, South Dakota State Medical Association and AMA relationships, grass-roots politics, media relations and the importance of our district medical societies. I hope you have all had a chance to look at some, if not all of these, and that these articles have at the least generated some productive thought about where we are and where we are going from here.

The year has gone extremely fast. I enjoyed my opportunity to attend both the AMA annual convention and the interim convention and enjoyed the interaction with the other states in the North Central Conference. I really wish that every physician in South Dakota could

have the opportunity to observe the AMA in action for I feel it would dispel a lot of the suspicions concerning the AMA and reinforce in everyone the importance of the AMA as spokesman for organized medicine. I also enjoyed my presidential visits to all of the districts, which began last August with a District 12 meeting at the home of Joe Kass in Rosholt and ended in District 8 in Yankton a few weeks ago. These presidential visits are indeed the highlight of the presidential year. I met so many nice people and always had a good time, and the discussions we held were frank, varied and productive.

My concerns about the future of medicine involve a general lack of AMA involvement and political involvement on the part of our physicians, the lack of young physician involvement in organized medicine, the seemingly general withdrawal of physicians from a proactive stance in their communities, and of course, a continuing pervasive increase in governmental control over the practice of medicine. Just what kind of health care system we are going to be faced with here in the United States in the future, only time will tell, but the continued lack of a cohesive and unified front on the part of the physicians of this country does not bode well for our patients' future welfare.

I would like to give a special thank you to Mr Bob Johnson, our Chief Executive Officer, good friend, traveling companion and Grand Poobah. I would also like to particularly thank Jan Anderson for all of her administrative help and Lorin Pankratz for once again playing Horatio at the bridge during the legislative session in Pierre. In general thank you to the marvelous staff that we have working for us at the State Medical Association office. Without the help of all of these people, the job of President of the Medical Association would be impossible and our State Medical Association would not exist. I have also enjoyed my closer relationship with our alternate AMA delegate, Woody Lang, who is probably one of the bravest men I have ever known and our AMA delegate Bruce Lushbough, who encompasses all of the good things that we as physicians try to be.

I am looking forward to the oncoming years. I will have the opportunity to remain on the Council as Councilor-at-Large for another year and become a member of the Grievance Commission like all past presidents do. I hope to continue to be active as long as I can be.

I thank you for the honor and the opportunity of serving this past year as your President. #

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to contact physicians directly for additional information before any claim is denied or any patient notices are released.

But there's more work to be done. During the next few months, HCFA, working with the AMA, will develop an educational program for improving physician understanding of the whole process. We must continue to look out for your patients and for your rights, too. But we can't do it without your help.

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The Problem of Obesity

Robert E. Van Demark, Sr, MD, Editor

Most Americans enjoy eating as evidenced by the facts that more than one third of the females are overweight and somewhat less than one third of the males. Obesity occurs in all socioeconomic groups.

Although generally ignored, mortality statistics of insured people over forty years of age indicate that overweight of as little as 10% increases the mortality by 11% in women and 16% in men.

Other non-fatal conditions show an increased incidence with overweight, e.g. degenerative arthritis of the weight bearing joints where obesity is a frequent common denominator. The effect of obesity on total joint implant life is a well recognized fact.

The Framington study¹ of a twenty six year follow-up of 5,209 women and men on obesity in cardiovascular disease, indicated that obesity is a significant factor particularly in women although weight gain after early adult years was a significant factor in both sexes. The conclusion was that intervention in obesity is an advisable goal in the prevention of cardiovascular disease.

Recent studies confirm that the location of the obesity is a factor in fat metabolism. In older adults upper body obesity (as measured by the waist-to-hip ratio) was inversely correlated with the level of high density lipoprotein₂ (carrying a reduced risk of coronary heart disease)². This is in conformity with the textbook³ clinical finding that fat people with waist and flank deposition are at greater risk than with hip fat deposition.

Although eating is the usual cause of obesity other factors, e.g. physical activity may be operative. Obese individuals tend to be less active. Sedentary life styles are a definite factor. The role of genetics appears to be increasingly prominent. Endocrine factors occur less frequently.⁴

The problem of obesity deserves the consideration of every practicing physician. Obese patients need the help of their physicians, not only in reducing their weight but also in maintaining a reduced weight. Losing weight is only half the battle. Both sides of the problem require the interest and strong support of the attending physician.

REFERENCES

1. Hubert HB, Feinleib M, McNamara PM, Castelli WP. Obesity as an independent risk factor for cardiovascular disease: a 26 year follow-up of participants in the Framingham Heart Study. *Circulation* 1983; 67:968-977.

2. Ostlund RE Jr, Staten M, Kohrt WM, Schultz J, Malley M. The ratio of waist-to-hip circumference, plasma insulin level, and glucose intolerance as independent predictors of the HDL₂ cholesterol level in older adults. *NEJM* 1990;322:229-234.

3. Braunwald E: Harrison's Principles of Internal Medicine. New York, 11th Ed. McGraw Hill, 1987. Pg 1671.

4. Ibid.

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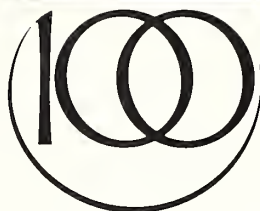


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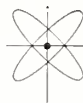
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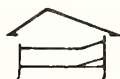
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Auxiliary News



Karen Pekas, President, South Dakota State Medical Association Auxiliary

This is my last article for the Journal as SDSMA Auxiliary President. Using the various pamphlets and publications from the AMA and Auxiliary in Chicago, I found writing each month a very worthwhile experience. We in the Auxiliary thank the editorial staff of the **SOUTH DAKOTA JOURNAL OF MEDICINE** for the privilege of sharing our thoughts and information each month. Mike and I both want to thank Jeri Spars for her gentle reminders each month.

As I look back over this year, it becomes very apparent to me that our association with medicine and medical people has been one of the biggest forces in our twenty-five (almost twenty-six) years of marriage. We were married the summer before Mike started medical school at USD, and like so many other young married couples at that time, our friendships and social groups revolved around medical couples! SAMA and WASAMA were important parts of our lives, and little did we know that organized medicine would become such a big part of our lives through residency and into Mike's practice in South Dakota!!

I chose a theme for the year stressing a coalition between the Medical Association and the Auxiliary. We in the Auxiliary have found the state office most accommodating in meeting our needs as your Auxiliary. Lorin Pankratz was most helpful during the legislative session, and we hope our efforts helped show our concern for the well-being of all South Dakota citizens. Jan Anderson has always been there for us, and I especially want

to thank her for her help in arranging our part of the Annual Meeting beginning May 30 in Rapid City.

Our Auxiliary goals for the year revolved around maintaining membership, health concerns of adolescents, a continuation of our support of AMA-ERF, and lastly family support and strength during times of crisis and stress. Although not all specific goals were met, generally speaking we can be very proud of our participation in Auxiliary throughout the state. Our membership, although not as high as last year, has reached approximately 450 which means that 50% of the spouses of physicians have elected to join the federation in South Dakota. This is impressive to say the least, and I wonder how many other states can boast as many dues paying members. States with large medical populations will always have more delegates, but our commitment is something we can be proud of!

The Auxiliary on a state and national level was very vocal this year in expressing our concerns regarding expenditure targets, and we were equally vocal in advocating the ban on smoking on domestic airline flights. Ann Randall, our Health Projects Chairman, targeted teen pregnancy and materials were distributed to the schools by the districts.

We also continued our support of AMA-ERF, and hopefully will have surpassed our goal by the end of the year. Don't forget to attend the AMA-ERF fundraiser at the annual meeting in Rapid City. TRASH will perform again for us, and we will have a short auction of items from each of the districts! Remember this is **your** Educational Research Foundation. Last year nationally the Auxiliary helped you support ERF by raising nearly \$2,000,000 for the Foundation!!

Finally, through visits to most of the districts, it is apparent that the problems facing the Association are also facing the Auxiliary. Attendance at meetings is not as good as it should be. Making goals and meeting them are ongoing for any worthwhile organization.

Thank you for all of the courtesies extended to Mike and to me this year. The friends we have made will be cherished always. #

A handwritten signature in cursive script that reads "Karen Pekas". The ink is dark, and the signature is fluid and elegant.

New Physician

The following physicians recently began practicing medicine in South Dakota.

The University of South Dakota School of Medicine has recruited **Jose Teixeira, MD**, a specialist in cardiology and electrophysiology. He is South Dakota's first electrophysiologist. Teixeira was born in Portugal and received his medical degree from the New University of Lisbon Medical School in Lisbon, Portugal. He came to the United States in 1983 to do his residency in internal medicine at Interfaith Medical Center, Brooklyn, New York. Dr Teixeira has completed Fellowships in cardiology and electrophysiology at the University of Medicine and Dentistry of New Jersey at Robert Wood Johnson Medical School, and is board certified in internal medicine. As Assistant Professor of Internal Medicine and Chief of Cardiology at the School of Medicine, Dr. Teixeira plans to build the cardiology department by developing additional electrophysiology labs in South Dakota and working closely with physicians throughout the state.

Lorraine Hazard, MD, a native of Leominster, Massachusetts, has opened her practice in Elk Point, serving the Elk Point/Alcester area.

She received her medical degree from Boston University School of Medicine in 1983; completed a two year internship at Georgetown University Providence Hospital in 1985; and a two year family practice residency in 1987 at the Howard University Hospital in Washington, DC.

Dr Hazard came to South Dakota from Hudson, New York.

Gregory Erickson, MD, a native of Langford, has joined Central Plains Clinic in Sioux Falls. Specializing in internal medicine, Dr Erickson earned his medical degree from the University of South Dakota School of Medicine in 1986. He completed his residency program in 1989 through the University of South Dakota School of Medicine Internal Medicine Residency Program.

Dr Erickson and his wife, Teresa, have one daughter, Alyssa.

Ellin Stiteler, MD, a new physician in Spearfish, has now opened her own private practice, after practicing at the Family Medical Center for a few months. She was born in Denver, Colorado, and grew up in Cody, Wyoming. She earned her medical degree at Creighton University Medical School in Omaha in 1980 and completed a three year family practice residency in Casper, Wyoming in 1983. She was in private practice in Pocatello, Idaho; Gillette, and Sundance, Wyoming, before coming to Spearfish.

Dr Stiteler and her husband, Kelly Bush, have three children: Sydney, 11, Shelia, 5 and Hannah, 2.

Yankton Medical Clinic announced the arrival of a new physician, **Richard A. Kaplan, MD**, who specializes in pediatric and adolescent medicine. Dr Kaplan is a native of Waterloo, Iowa. He obtained a master's degree in social work in 1976 from Saint Louis University, and then went on to receive his medical degree from the University of South Dakota School of Medicine in 1984 and completed his pediatric residency at Phoenix Children's Hospital in 1987. Since that time he has practiced in Marshall, Minnesota, until coming to Yankton. Dr Kaplan is a Fellow of the American Academy of Pediatrics and a Diplomate of the American Board of Pediatrics.

He and his wife, Avonne, have two children: Max, 7 and Lindsay, 5 and were expecting a third child at the time of the announcement.

James Craig, MD, a native of Omaha, recently joined the medical staff of the Tschetter-Hohm Clinic in Huron. Dr Craig, who is a general practice physician, also has an extensive interest and experience in obstetrical and gynecologic surgery. He obtained his medical degree from the University of Nebraska in 1971; completed a rotating internship at the LDS Hospital in Salt Lake City; and a surgical residency in 1973 at St Elizabeth's/Lincoln's VA Hospital, Lincoln, Nebraska. He was in private practice in Lewiston, Montana, until 1986 and in Perryville, Missouri, from 1986 until moving to Huron.

His interests include hunting, fishing, skiing and weightlifting.

Scott Gale, MD, a native of Pueblo, Colorado, joined the Tschetter-Hohm Clinic in Huron. Dr Gale, a general surgeon, received his medical degree from Case-Western Reserve University, Cleveland, Ohio in 1962; he completed an internship at the University of California in San Francisco in 1963; and three years of a surgical residency at the University of Colorado in Denver.

In 1966, the Army drafted him out of that residency. He spent two years doing military surgery at Ft Rucker, Alabama, and one year at the 24th Evac Hospital in Viet Nam. He then returned to Denver to complete the fourth year of his surgical residency. In 1969, he had the honor of being accepted for an exchange fellowship at St Bartholomew's Hospital in London, England. He had been practicing surgery in Ft Collins, Colorado, prior to coming to Huron.

His interests include outdoor activities, woodworking, music and plays, reading and playing bridge. #

SOUTH DAKOTA

Correspondence

On the President's Page of the March issue, Dr Pekas indicates that the only way we are going to get a fair hearing in the media is to buy space and publish our own announcements. Unfortunately, this is true, but it would deprive us of the benefits that would be obtained by true and fair reporting by the news media. The material reported as "news" by the news media has a reputation for fairness and objectivity, which paid advertisements do not. The fact is that in areas of heated interest, the news media have largely become partisan. Occasionally, as for example with the issue of "environmentalism," the major news media will admit that they have become partisan. With the issue of socialized medicine, which actually is the goal of most major organs of the news media, they will not admit that they have become partisan.

Hidden agendas and unannounced partisanship have a long history in the news media, but became most flagrant during the Viet Nam War. Edith Efron wrote two interesting books on just that issue, the first being *The News Twisters* and the second being *How CBS Tried to Kill a Book*, a documentation of how CBS, whose bias was exposed systematically in Efron's first book, tried to prevent the publication of that book and to discredit it once it did get published.

A small but very effective group called Accuracy In Media documents month after month the distortion and bias, always in favor of the position of the left, in the major organs of the news media, both printed and electronic. The national elections in the last ten years have adequately demonstrated the public's recognition of this media bias as for three campaigns running they have systematically voted against the presidential candidate favored, protected, and defended by the national news media. The problem is that the public does not generally recognize that news media bias extends even to issues of medicine. The fact is, from AP to Geraldo Rivera, the news media trumpet medicine's problems and suppress its successes. When studies are done, 80-90% of the leaders and personalities in the national news media describe themselves as liberal. Generally, 90% or more voted for people like Mondale and Dukakis.

This isn't to say I know what to do about it. It is just that I wanted to see it in print. I know that only 200 people will read it, and most of them already know it, but it gives me a small amount of grim satisfaction to see it said in public.

Sincerely,
James W. Wiggs, MD
Yankton, SD

Editor's Note: The total circulation of the *South Dakota Journal of Medicine* is 1300+, so we expect that more than 200 will read it.

MAY 1990

I am writing in response to Dr Michael Pekas' President's Page article in the March issue of the *South Dakota Journal of Medicine*. In Dr Pekas' article, he says local and national media continually portray medicine in a negative manner.

Obviously, Dr Pekas does not watch many news casts on KELO TV. KELO has taken the lead on health care coverage in the area. Every week night during our six o'clock news, I have a segment called Health Beat. Two of the five nights, I run Medical Advances, all positive stories about new equipment, techniques, drugs, and research that now or someday might help people. The other three nights we air stories, usually involving a patient and a local doctor, explaining a disease and the treatment. These doctors are members of your organization the South Dakota State Medical Association. I also do an interview, usually with one of your organization's doctors, every Thursday on our On-Call segment on the Early News at five o'clock. Along with new developments, we try to provide a public service by educating people on various health topics, some pretty positive goals.

I take issue with Dr Pekas' statements that trying to work with the media has brought no results. I have never been approached by anyone from the Medical Association. I would be more than happy to discuss the uninsured and health care costs, as Dr Pekas suggested in his article.

With so much opportunity available through KELO TV's efforts on health, it seems surprising that Dr Pekas would suggest Medical Association members pay a fee to get out the "good news" on medicine.

As you probably know KELO's coverage area includes nearly the entire state along with parts of Iowa, Minnesota and Nebraska.

The media are an easy target to bash, but please take a look at what we are really doing.

Sincerely,
Bobbi Lower
KELO TV
Sioux Falls, SD

Reply from Dr Pekas to Bobbi Lower

I am certainly pleased to know that you read at least one of my commentaries in the *South Dakota Journal of Medicine*. I must agree with you that you do provide a valuable public service by exposing your viewers to health topics ranging from technical advances in medicine and research to topical interviews with physicians and patients covering various health topics.

On these efforts you are certainly congratulated and as you know medical news is definitely a popular topic.

I am very excited to find from your letter that you would be interested in discussing and hopefully presenting some of the extremely serious problems that face all of us in this country in regard to the ongoing changes in our health care system. Basic questions have to be answered about continued quality medical care and access to that care. Movement on the part of governmental and business forces to limit the quality and access to medical care and the continued increase in governmental control over the practice of medicine. The declining enrollment in our medical schools. The 35 million health uninsured in this country, the number of which continues to grow caused by skyrocketing increases in health insurance costs due in part to increasing mandated benefits and the lack of any form of tort reform in our country. We are faced with a huge crisis in our health care system in this country and

nobody seems to want to talk about it except to look for scapegoats. What I am afraid will happen is that our present health care system, which I feel is the best in the world, will be replaced by a health care system adopted or borrowed from another country which would lead to rationing of poor quality health care to the citizens of our country.

I would be more than happy to discuss any of these topics with you at any time. Organized medicine is extremely concerned about these problems and we do have a lot to say if somebody would listen to us. I was interested in your comment about media bashing. We physicians in this country certainly have had our share of this activity perpetrated upon us in the past decade.

Sincerely,
Michael W. Pekas, MD
President, SDSMA
Sioux Falls, SD

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Future Meetings

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A Review of Orthopaedics and Orthopaedics Pathology, Creighton U, Omaha, NE, May 31-June 3. CME credits avail. Contact: Sally C. O'Neill, PhD, Creighton U, CME Div, 2500 California St, Omaha, NE 68178. Phone: 1-800-548-2633.

June

Third Annual Twin Cities Tutorials, Hennepin County Med Ctr, Minneapolis, MN, June 1. Fee: \$25. 3 hrs AAFP & AMA Category I credit. Contact: Frances Ewing, CME Registrar, Off of Academic Affairs, 701 Park Ave, S, #4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

Laparoscopic Cholecystectomy, Radisson Redick and Creighton Dental School, Omaha, NE, June 8-9. CME credits avail. Contact: Sally C. O'Neill, PhD, Creighton U, CME Div, 2500 California St, Omaha, NE 68178. Phone: 1-800-548-2633.

Medical Ethics Seminar for Physicians, Creighton U, Omaha, NE, June 9. CME credit avail. Contact: Sally C. O'Neill, PhD, Creighton U, CME Div, 2500 California St, Omaha, NE 68178. Phone: 1-800-548-2633.

Thirteenth Annual Black Hills Seminar on Advances in Clinical Pediatrics, Golden Hills Resort, Lead, SD, June 27-29. Contact: Debbie Meyer, Dept. of Peds, USD School of Medicine, 1100 S Euclid, PO Box 5039, Sioux Falls, SD 57117-5039. Phone: (605) 333-7178.

Medical Staff Issues, Doubletree Hotel at Fisherman's Wharf, Monterey, CA, June 22-24. Fee: \$470. 11 hrs CME credit. Contact: Calif Assoc of Hosp & Health Sys, Education Dept, PO Box 1100, Sacramento, CA 95812-1100. Phone: Joint Commission in Chicago, (312) 649-8100.

July

KU Summer Medical Symposium; Medicine for the Practicing Physician, Broadmoor Hotel, Colorado Springs, CO, July 19-22. Fee: \$325. 15 hrs AMA Category I credit. Contact: Andrea Shaw, U of Kans Med Ctr, Off of Cont Educ, Rainbow & Olathe Blvs, Kansas City, KS 66103. Phone: (913) 588-4480.

Advances in Clinical Management of Infectious Diseases, Cragun's Conf Ctr, Brainerd, MN, July 27-30. Fee: \$150. 9.5 hrs AMA Category I credit. Contact: Frances Ewing,

CME Registrar, Off of Academic Affairs, 701 Park Ave, S, #4512, Minneapolis, MN 55415. Phone: (612) 347-2075

Annual Meeting of American Academy of Sports Physicians, Seattle, WA in conjunction with the Goodwill Games, July 27-30. Contact: Janie Zimmer, Academy Coord, 17113 Gledhill St, Northridge, CA 91325. Phone: (818) 886-7891.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

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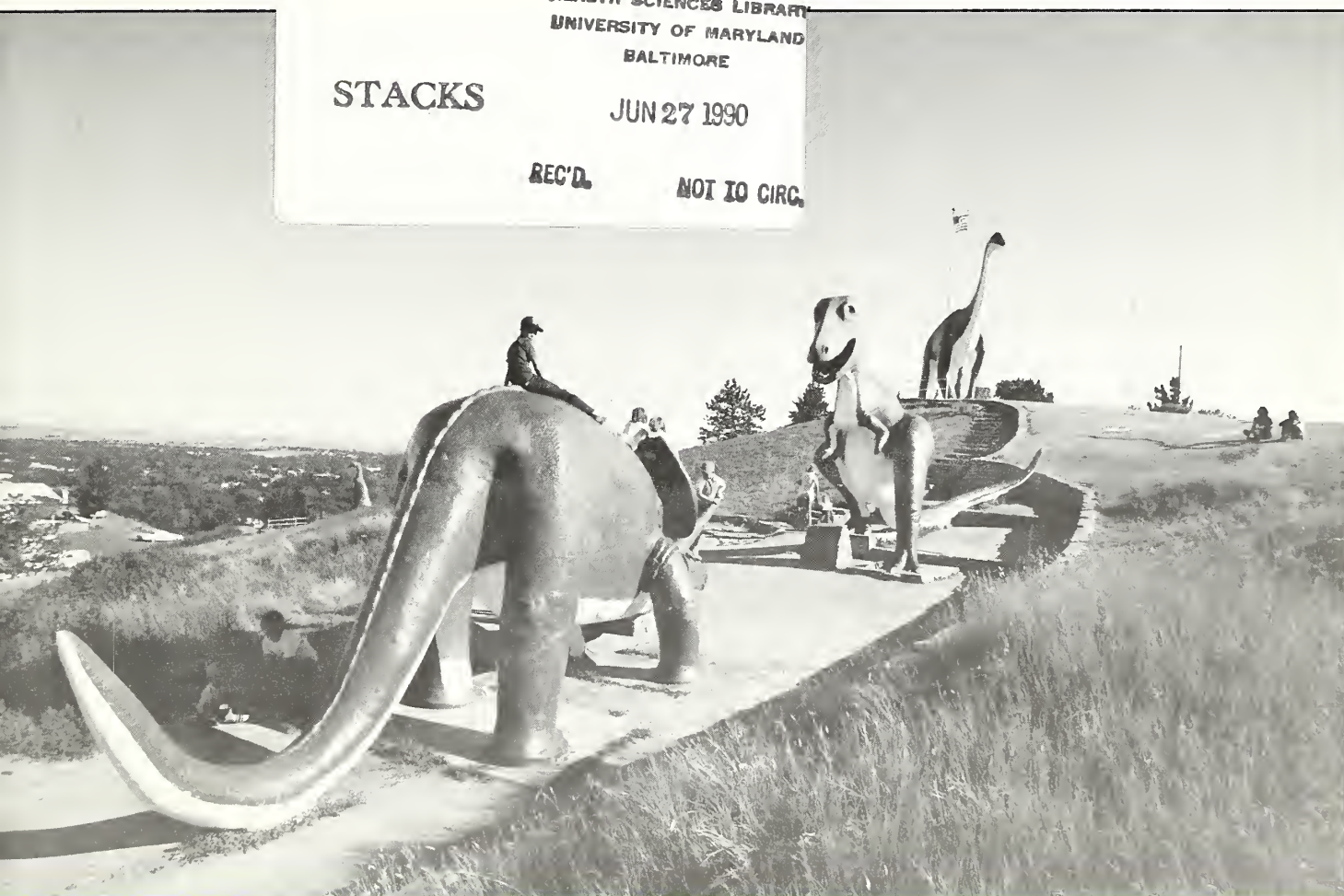
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NEXT MONTH

Decreasing Numbers of Patients for Vaginal Hysterectomy and Plasty

CORRECTION

A printing error was made in the May 1990 issue of this Journal. Figures 7 and 8 on page 8 of the article "Angular Deformities of the Tibia in Children: A Review of Three Cases", by Richard G. Briggs, BA and Walter O. Carlson, MD were inadvertently printed upside down. We at the SOUTH DAKOTA JOURNAL OF MEDICINE apologize for this mistake.

About the Cover

Seven life-sized concrete replicas of dinosaurs stride the ridge at Dinosaur Park overlooking the city of Rapid City, South Dakota. (Photo courtesy of the South Dakota Department of Tourism)

President's Page

About Our New President

JEROME A. ECKRICH, MD was born and raised in Aberdeen, South Dakota and graduated from Aberdeen Central High School in 1950. He graduated from the University of Minnesota in 1954 with a Bachelor of Science degree in Zoology and graduated from the Marquette University College of Medicine in 1958. His internship was served at Tripler U.S. Army Hospital from 1958 to 1959. His residencies in graduate education consisted of a general surgery residency at Ireland Army Hospital, Fort Knox, Kentucky, 1959-1960, and a residency in Urology at the VA Hospital in Milwaukee, Wisconsin, Children's Hospital in Milwaukee, Wisconsin, and Milwaukee County Hospital from 1961-1964.

Dr Eckrich was certified by the American Board of Urology in 1968; the American Urological Association in 1971; the American College of Surgeons in 1969 and the Society for Pediatric Urology in 1978.

He holds the position of Associate Professor of Urol-

ogy, University of South Dakota School of Medicine and is a member of the International College of Surgeons; the American Association of Clinical Urologists and the Alpha Omega Alpha Honor Medical Society.

Dr Eckrich and his wife, Helen, have eight grown children, two of whom are also physicians. His interests in addition to the practice of urology include hunting, fishing and flying. He recently completed his Grand Slam of North American Big Horn Sheep and has pursued his interest in aviation through his commercial license, seaplane, instrument, and multi-engine ratings, and an airline transport pilot rating. He frequently combines his love of flying and fishing by flying to many wilderness lakes in Northwestern Ontario in his float equipped Cessna 180.

He does not consider himself a politician in the classical sense of the term, but is looking forward with enthusiasm to serving the membership of the South Dakota State Medical Association as its president in 1990.

#

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President's Page



Jerome A. Eckrich, Jr, MD, President, South Dakota State Medical Association

As a physician who has now spent more than half of his existence on earth practicing medicine, I cannot help but notice the gradual declination of the medical profession in social estimation and position. In trying to determine causes for such a deterioration of medicine's image in our society, I have come to the conclusion that the most potent is the vulgarization of the title of MD.

Over the years I have been progressively impressed with the extraordinary change in our medical world. This change is probably best summarized in a presentation by Dr John B. McKinnley on the "Corporatization of U.S. Healthcare in the Decline of the Golden Age of Doctoring", in which he examines the role of capitalist expansion in health care and its influence on medical professionals. Dr Uve Reinhart, the Princeton Professor of Medical Economics, has coined a phrase, "The de-professionalization of medicine," that aptly describes our current plight.

Our government in its omniscience has encouraged for-profit activities in medicine--privately owned hospital chains, nursing homes, HMO's, PPO's, etc, but at the same time has discouraged and in some cases even prohibited participation of physicians in these business ventures.

The Department of Health and Human Service has

also reissued and reaffirmed the Medicare/Medicaid fraud and abuse anti-kickback rules and regulations. These rules are designed to prohibit physician remuneration of any kind, which is intended to induce "business" and which is reimbursed under either Medicare or Medicaid programs. These onerous regulations extend to referral services, sale of a medical practice, and investments made by physicians. There clearly is no other profession or occupational category that has been singled out for such oppressive and discriminatory legal restriction. One has to wonder why the same attention and focus which has been brought to bear on physician reimbursement hasn't been similarly applied to legal fees or why there have not been any recommendations forthcoming relative to the remuneration of attorneys, or why there has been no effort to regulate the obscene incomes of Wall Street Brokers, many of whom are either engaged in marginally legal financial activities or, in some cases, behind bars.

When physicians have attempted to counter by establishing fee guidelines in a cooperative manner, government has viewed this as "fee fixing" and has initiated antitrust actions in some instances. However, the government itself has been actively engaged in fee fixing ever since the inception of Medicare and its capricious and arbitrary fee schedules to which physicians must slavishly adhere.

The basic problem underlying all of the concern about the cost of medical care is the fact that our politicians 25 years ago assumed a burden that they could not possibly bear. The political promise was made that all medical services would be provided and all medical care would be reimbursed. There was a failure to recognize the impact on the cost of medical care by most physicians who were giving as much as one-third of their time to the unreimbursed care of the indigent and the needy.

More recent "innovations" to further hamstring and stultify the practice of medicine are such phrases as medical patterns of care, treatment outcomes, peer review, PRO's, and most recently, the impending implementation of the National Practice Data Bank the ultimate goal of which is medical practice "by the book". The most depersonalizing influence on the practice of medicine probably has occurred with the emergence of HMO's and other similar prepaid medical strategies for the delivery of medical care which have tended to reduce physicians to, 8 am to 5 pm forty hour week, paid employees. This sort of arrangement depersonalizes the delivery of medical care and consequently vulgarizes our profession.

All of these distressing changes can be addressed and corrected. The first step is general recognition and acceptance of the fact the de-professionalization is occurring. The next step is for our profession to take a positive leadership role establishing policies that will restore dignity to what must be the most respected profession of all. #

Jerome A. Eckrich

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Acute Theophylline Overdose Treated With Whole Bowel Irrigation

Gerti J. Janss, MD¹

ABSTRACT

Case report of massive overdose of TheoDur treated with Whole Bowel Irrigation (WBI) with Colite^R. Theophylline levels and clinical symptoms decreased as soon as WBI was completed. Colite^R is inexpensive, safe to administer and easy to store. It may be lifesaving if administered promptly during transport to a secondary treatment facility.

A 21 year-old Native American male (with history of numerous suicide attempts and multiple drug abuse) took eighty 300mg tablets of TheoDur. He promptly called the ambulance and was taken to the Public Health Hospital where emesis was induced with syrup of Ipecac. Serum theophylline level was 32 mcg/ml. He was transferred to the Community Hospital. On arrival he was awake, alert, responsive, intermittently vomiting. Sinus tachycardia was recorded as 138. Theophylline level, 1 1/2 hours post ingestion was noted to be 61.8 mcg/ml. Potassium level was 3 mEq/l.

Serum potassium was only 2.4 mEq/l in spite of having received 110 mEq of potassium over a period of 3 hours.

The patient was admitted to the Intensive Care Unit for close monitoring, and was given activated charcoal doses every two hours, the first dose combined with sorbitol. Arterial blood gasses on room air revealed a pH of 7.27, pCO₂ of 27 mmHg and pO₂ of 117 mmHg. IV fluids were started D5W, with 20 mEq/l of bicarbonate, 40 mEq/l of potassium, at the rate of 100cc per hour. Potassium and theophylline levels were obtained, and

potassium was supplemented as needed in boluses of 20 mEq/l in 100cc of D5W. He became progressively more agitated and belligerent. Theophylline levels continued to climb.

At 7 hours post ingestion, the patient expressed a feeling of impending doom, began to complain of severe headaches, thirst, chest pressure. He pulled his nasogastric tube out and demanded to go home. Telemetry monitors began to show occasional PVC's with a sinus tachycardia of 168. Arterial blood gasses at that time revealed a pH of 7.22, pCO₂ of 23 mmHg, pO₂ of 118 mmHg. Serum potassium was only 2.4 mEq/l in spite of having received 110 mEq of potassium over a period of 3 hours. Serum theophylline level was 123.6 mcg/ml.

Since the patient was alert and responsive he was given the option of taking two gallons of Colite^R orally rather than re-insertion of the nasogastric tube for administration of two liters per hour of Colite^R. He began to drink fluid and became less agitated. His thirst, headache, discomfort subsided.

He began to pass copious watery stools: brown at first, then charcoal stained, then clear as water. The theophylline dropped to 116.5 mcg/ml within 1/2 hour of having drunk the Colite^R, and 84.6 mcg/ml after 4 hours. Within 27 hours the theophylline level was in therapeutic range. Potassium levels gradually rose without potassium supplementation and were normal at 24 hours. At no time were there any seizures. He willingly agreed to be admitted to an extensive drug rehabilitation program.

DISCUSSION

Acute theophylline overdose is associated with elevated systemic catecholamines,¹ hypokalemia,

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nausea, vomiting, tachycardia, seizure, and cardiac arrhythmias, which may progress to hypotension, shock and death.² Life threatening events correlate with high theophylline serum levels. Treatment consists of supportive care, gastric decontamination, and hemoperfusion or hemodialysis when serum levels climb over 80 mcg/ml.^{2,3}

Following overdoses with a slow release substance, it may be lifesaving when administered promptly and persistently during transport to a secondary treatment facility.

Following massive ingestion of slow release preparations of theophylline, serum levels may peak up to 12 hours post ingestion, even when the patient is hospitalized and treated optimally (i.e., prompt gastric evacuation with Ipecac induced emesis and/or gastric lavage, administration of activated charcoal every 2 hours, and supportive care).⁴

Whole bowel irrigation (WBI) was first used by surgeons preceding large bowel surgery. This procedure involved mechanical cleansing of the bowel by enteric administration of large amounts of lavage fluids over several hours until the stools consist of clear water.⁵ Gastroenterologists use WBI with commercially available osmotically and electrolyte balanced lavage solutions such as Colite^R prior to colonoscopy.

In controlled studies by N. Tenenbein, MD et al., Colite^R (polyethylene glycol electrolyte balanced solu-

tion) was administered to volunteers at a rate of 2 liters per hour, one hour following ingestion of 5g of Ampicillin.⁶ Serum levels were significantly lower (P less than .001), decreased 67% of control level.

Using a three-limbed crossover protocol in a second study, Tenenbein, et al. demonstrated that (compared to no intervention) after ingestion of 3g of enteric coated aspirin, serum levels were significantly reduced by both WBI (78%) and boluses of activated charcoal given every 2 hours (33%).⁷

This case report illustrates the benefit of WBI plus aggressive potassium replacement in the treatment of acute theophylline overdose. Colite^R is inexpensive, safe to administer, and easy to store in any rural health facility. Following overdoses with a slow release substance, it may be lifesaving when administered promptly and persistently during transport to a secondary treatment facility.

REFERENCES

1. Gaar G: The effects of esmolon on the hemodynamics of acute theophylline toxicity. *Ann Emerg Med* 1987;16:1334-1339.
2. Goldberg MJ, Park GD, Berlinger WB: Treatment of theophylline intoxication. *J Allergy Clin Immunol* 1986;78:811-817.
3. Gal P, Miller A, McCue JD: Oral activated charcoal to enhance theophylline elimination in an acute overdose. *JAMA* 1984;251:3130-3131.
4. Corser BC, Youngs C: Prolonged toxicity following massive ingestion of sustained-release theophylline preparation. *Chest* 1985;88:749-750.
5. Hewitt J, Reeve J: Whole-gut irrigation in preparation for large-bowel surgery. *Lancet* Aug 1973;18:7825-7828.
6. Tenenbein M, Cohen S: Whole bowel irrigation as a decontamination procedure after acute drug overdose. *Arch Intern Med* May 1987;147:905-906.
7. Tenenbein M, Kirshenbaum LA, Mathews SC, Sitar DS: Whole bowel irrigation vs activated charcoal/sorbitol for the ingestion of delayed release pharmaceuticals. *AAPCC/AACN Ann Scien Meet Oct 1988;Abs 51.*

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References

1. USP DI Update, September/October 1988, p 120
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.

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Drug Interactions—No interactions have been observed with theophylline, chlorazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system, therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, swelling (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

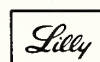
Dther—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Another Word About AIDS

Anthony G. Salem, MD, Guest Editor

Professor, Dept of Medicine, USD School of Medicine
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The scourge of AIDS and HIV infections has not really impacted on South Dakota. From June 1985 through April 1990, the South Dakota Department of Health reported only 33 patients with AIDS and a total of 115 HIV infections in the state. Blood bank data from the same time period also suggest a truly low incidence of HIV infections in South Dakota. The CDC recently reported that South Dakota has the lowest incidence of AIDS in the United States.¹

While these statistics are comforting to our citizens and health care workers, they probably do not accurately reflect the true incidence of the disease in the state. Even though state law requires that all HIV-infected patients be reported to the South Dakota Department of Health, there is probably underreporting and, most importantly, inadequate testing of people with high risk behavior for acquiring the AIDS virus.

Current data suggest that 54% of HIV-infected people progress to clinical AIDS within 10 years,² and that most, if not all, infected people eventually develop AIDS. The median incubation period for the development of AIDS after acquisition of the virus is 11.0 years.³ Based on these and other data, an HIV-infected individual may be asymptomatic for years but still be capable of transmitting the virus to others.

Early diagnosis of HIV infections is desirable since 1) prophylactic zidovudine is available for patients with a T-cell count below 500;⁴ 2) prophylaxis for *Pneumocystis carinii* is available for patients with a T-cell count below 200;⁵ 3) patients should change their behavior to prevent the transmission of HIV to others; 4) patients should avoid activities that can worsen their own health such as exposure to sexually transmitted diseases, exposure to drugs, alcohol, and tobacco; 5) knowledge of the infection allows patients to make or change long-term plans such as marriage, pregnancy, careers, etc; and 6) knowledge of the infection allows patients to attempt to adapt psychologically.

We do not know the origin or natural history of the AIDS virus, but the first reported case in the US probably occurred in 1968.⁵ AIDS was actually recognized as a clinical syndrome in the US in 1981. Retrospective studies of stored sera from intravenous drug users demonstrate that the AIDS virus was not very

prevalent in the US prior to 1978.⁶ This suggests that the risk of acquiring the AIDS virus before 1978 was minimal.

In order to test patients with high-risk behavior, health care workers must feel comfortable taking a sex, blood and drug history. Taking a sexual history may be difficult for many but becomes much easier with a little practice. It is not important to discuss various sexual practices, but it is important to know whether an individual had unprotected sex outside a monogamous relationship since 1977. Of course, homosexual and bisexual encounters or sex with a prostitute are more likely to transmit HIV than casual heterosexual sex (lesbians are at low risk of transmitting HIV). A history of IV drug use with needle sharing since 1977 is considered very high risk behavior. A history of blood exposure is slightly different. Did an individual receive any blood products between 1977 and March of 1985? Blood products are considered relatively safe since March of 1985, when routine HIV blood testing was instituted in blood banks across the country.

Since many adults have engaged in high risk behavior, health care workers must use discretion in recommending who should be tested. Surprisingly, many people are relieved when the doctor suggests that they be tested for the AIDS virus. Because of the social, economic and psychological implications of an HIV infection, it is extremely important that an individual realizes the potential benefits and risks of knowing one's HIV status. Therefore, it is extremely important that informed consent (written informed consent in federal health care facilities) be obtained before testing.

While confidentiality is a basic tenant of medical practice, it is often difficult to achieve in small or close-knit communities. For these reasons, health care workers may wish to refer some of their patients to a "central test site" where strictly confidential testing can be obtained. In South Dakota, central test sites are located in Sioux Falls (339-6666), Rapid City (394-2290), Aberdeen (622-2373), and Pierre (773-3364).

In summary, while the full effects of AIDS and HIV infections have not truly impacted on health care in South Dakota, it is important that health care workers actively seek out those people with high-risk behavior/exposure and recommend HIV testing. It is also important that health care workers become familiar with the care and treatment of the HIV-infected patient.

REFERENCES

1. CDC, Update: acquired immunodeficiency syndrome—United States, 1989. *MMWR* 1990;39:81-6.

2. Lifson A, Hessol NA, Rutherford GW, et al: The natural history of HIV infection in a cohort of homosexual and bisexual men: clinical manifestations, 1978-1989. V International Conference on AIDS. Montreal, 1989;T.A.O.32.
3. Lamp GF, Payne SF, Rutherford GW, et al: Projections of AIDS morbidity and mortality in San Francisco. JAMA 1990;263:1497-1501.
4. Volberging PA, Lagakos SW, Matthew AK, et al. Zidovudine in asymptomatic human immunodeficiency virus infection: a controlled trial in persons with fewer than 500 CD-4-positive cells per cubic millimeter. N Eng J Med 1990;322:941-949.
5. CDC. Guidelines for prophylaxis against *Pneumocystis carinii* pneumonia for persons infected with human immunodeficiency virus. MMWR 1989(S-5):1-9.
6. Garry RF, Witte MH, Gottlieb AA, et al: Documentation of an AIDS virus infection in the United States in 1968. JAMA 1988;260:2085-2087.
7. Chassignon RE: Transmission of HIV in intravenous drug users, in Cotten PT, Sande MA, Volberding PA (ed): The AIDS Knowledge Base. Waltham, MA, The Medical Publishing Group, 1990, chap 1.2.6.

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OBRA - Its Effect on the Mentally Ill in South Dakota Nursing Homes

David A. Smith, MD¹
Staci Jensen, BSW²

ABSTRACT

Mental illness is quite prevalent in the nursing home population. The Omnibus Budget Reconciliation Act of 1987 (OBRA), as it relates to nursing homes, has many facets including preadmission screening, periodic assessment, formalized patient rights, and gives reviewers a broader list of sanctions for offending facilities. OBRA does away with the designation of skilled and intermediate levels of care. It provides for evaluation of special needs of the mentally retarded and developmentally disabled and expects relocation of residents in need of specialized treatments. Similarly, it requires evaluation of the mentally ill in nursing homes for appropriateness of placement and discourages admission of potential nursing home residents with mental illness. This last aspect of OBRA and its potential effect of the long term care system, the mental health system, and the budget of the state of South Dakota are the subject of this paper.

The Omnibus Budget Reconciliation Act of 1987 went into effect on January 1, 1990. In regard to nursing homes, the intent of the Act is to improve quality of care, ensure patient rights, and to shift fiscal responsibility from federal sources to the states. Medicaid funds about 55 percent of nursing home care in South Dakota or \$46.3 million annually. Of this, 71 percent is federal share. South Dakota's share, then, is 29 percent or \$13.5 million, and this is the largest single "line item" in the state budget.¹

If mentally ill nursing home residents are identified through the OBRA mandated assessment process that are deemed inappropriate for community nursing home care, they will be transferred to alternative placements such as community based programs (halfway houses, adult foster care, etc) or to the Human Services Center. The vast majority of such individuals are indigent. It seems a safe assumption that since these patients currently reside in nursing homes, that most will be inappropriate for community programs. If the patient is over age 65, care is still funded by Title XIX assuming that the patient can reside at the South Dakota Human Services Center's Pierce Geropsychiatry Unit,

the state's only institution for mental disease (IMD). If under 65 years or if placed anywhere else on HSC grounds, the patient is ineligible for Title XIX, and care is entirely state funded. For fiscal year ending June 1989, the Pierce Unit ran a 96 percent occupancy so would be unable to take in more than a few additional patients.² Howard Building could be renovated to expand capacity (at some expense), but staffing it would be problematic.

OBRA defines the group under scrutiny as those carrying an Axis I diagnosis using the American Psychiatric Association's Diagnostic and Statistical Manual, Third Edition-Revised, excluding the dementias without psychotic features.

There are 8,035 nursing home residents in South Dakota. In a prospective study, Rovner found greater than 90 percent of nursing home residents with mental health problems though the number of these fitting OBRA criteria is unclear.³ Depending on criteria utilized (the MD's listed diagnoses, the use of psychotropic medication, independent assessment by a mental health professional, documented behavior problems, etc), the number of South Dakota nursing home residents under scrutiny could be large or small. If the mission is really to find patients who are not receiving adequate and specialized mental health care, then the number is likely small. If a target reduction in federal fiscal responsibility is the object, the criteria need simply to be expanded.

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South Dakota nursing homes were asked through a self-survey to identify from among their residents individuals suffering from mental illness, mental retardation, or developmental disability. Eight hundred thirty individuals were identified (presumably by the MD's listed diagnoses) representing 9.7 percent of the state's nursing home population. Of these, the Department of Social Services chose 291 as needing more thorough evaluation. One hundred one were mentally ill, 154 were MR/DD, and 34 carried both diagnoses. Only 6 of these individuals were private pay.⁴

OBRA contains a "30 month rule" which provides that nursing home residents under age 65 who have been in a nursing home for less than 30 months should be transferred to more appropriate placement. Nine such DD/MR and 6 mentally ill patients were found. Eighty eight nursing home residents under age 65 but residing at their facility for longer than 30 months were identified. Fifty nine were MR/DD, 28 MI, and 1 dually diagnosed. Under OBRA, if these patients are in need of specialized treatment not provided by their facility and their physical needs do not override these mental health needs, then they will be required to transfer. An unknown number of patients over age 65 with MR/DD or Axis I mental illnesses other than dementia and no significant physical need for nursing home placement might require "active treatment" and so be at risk for transfer to alternative placement depending on application of the Act.

Another issue is the patient entering the system. Occupancy averages 95.9 percent in South Dakota nursing homes as of 1987. We have a moratorium on the development of new nursing home beds so most facilities, especially those in areas of high need or demand, have waiting lists. It is likely that the patient with a mental health diagnosis will not be considered for community nursing home placement. The facility will see no reason to "take the risk". Already this author has failed to find community nursing home placement for a 68 year old female with bipolar illness, and therefore, uncontrolled Type II diabetes. The patient was placed at HSC.

Is a mentally ill, retarded, or developmentally disabled patient best placed near home and family and in a less restrictive environment or at a distant but specialized long term care program more capable of the state of the art treatments and milieu to maximize the potential of the individual? This is a "judgement call" that physicians have always had latitude to decide in the past. Now, the decision is out of our hands.

REFERENCES

1. Schumacher E: South Dakota Department of Social Services, personal communication. August 1989.
2. Worden R: Pierce Geropsychiatry Unit, South Dakota Human Services Center, personal communication. August 1989.

3. Rovner BW, et al: Prevalence of mental illness in a community nursing home. *Am J Psy* 1986;143:1446-1449.
4. Job C: South Department of Social Services, personal communication. June 1989.
5. Interpretive Guidelines for Skilled Nursing Facilities and Intermediate Care Facilities: Department of Health and Human Services. Health Care Financing Administration. September, 1989.

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South Dakota Foundation for Medical Care is responsible for assessing the medical stability of patients at discharge and for determining if there is a premature discharge.

A premature discharge occurs when a patient is discharged even though the patient is not medically stable. A premature discharge does not always have to result in a readmission to be considered premature. A patient transferred to a lower level of care when the patient's medical situation still requires a higher level of care reflects a premature discharge situation.

A premature discharge can occur when the patient is readmitted to the same hospital for treatment or further testing that should have been provided during the first hospitalization (i.e., the patient was medically unstable at discharge, elevated temperature, post-operative wound with abnormal bleeding, unaddressed abnormal laboratory studies) or had not received all the necessary services or tests during the first admission.

Through the physician peer review process, physician advisors determine if a premature discharge situation exists on a case by case basis. If the medical record indicates it was medically unsound to transfer or discharge a patient, a preliminary quality of care notice is issued to the attending physician requesting clarification/additional information. Should the patient be readmitted to the same hospital as a result of the premature discharge, the physician advisor will also determine if a preliminary denial notice should be issued for the readmission.

There are circumstances where the patient may be transferred or discharged without treatment (e.g., patient refuses care treatment) which would not reflect a premature discharge. Readmission for the same or related conditions are often as a result of the patient's particular problems and not a result of a premature discharge. The medical records are evaluated by the physician advisors on a case by case basis to assure the appropriateness of the admission and subsequent readmission or transfer.

It is very important to clearly indicate in the medical chart the basis for laboratory abnormalities, the patient's treatment plan, and particularly when a patient is being sent home or transferred on what could appear to be an unstable condition but with mitigating factors present.



ENDANGERED.

These young people may *look* perfectly healthy and carefree. But adolescence can be a time of peril. The AMA White Paper on Adolescent Health spells out the facts.

Are these adolescents among the two-thirds of our nation's teens who've tried illicit drugs? Do they share the drinking problem that afflicts one in every five of our fourteen to seventeen-year-olds?

Will this young woman be a victim of rape? In the U.S., a full 50 percent of rape victims are under eighteen years old. Will this young man attempt suicide? Every year, at least 50,000 young people do, and 5,000 of those under 24 die as a result. Or will these adolescents—who may look like they don't have a care in the world—run away from home?

Through our Initiative on Adolescent Health,

the AMA is trying to change all that. Our recent national congress showcased programs that promote adolescent health at local, regional and national levels. And we're planning a second national congress for May of 1989.

In addition, the AMA is developing a national coalition of health agencies dealing with adolescent health, as well as a research facility, the Center for Adolescent Health Analysis.

To implement these programs—to address the social and medical problems our teenagers face—we need your help.

Our members make a difference.

If you're already a member, we need your continued support. If you're not, JOIN TODAY.
Call 1-800-AMA-1452



In most cases, medical association dues may be deductible as professional or business expenses.
Dues and other contributions to the AMA are not deductible as charitable contributions for Federal income tax purposes.



Jacalyn Slingsby, President, South Dakota State Medical Association Auxiliary

The Gift of Membership to the South Dakota Medical Auxiliary

With the arrival of your *SOUTH DAKOTA JOURNAL OF MEDICINE* you may notice a new face in the "Auxiliary News" section. I would like to introduce myself. I am Jackie Slingsby from Rapid City and, I was installed as the new state president at the Annual Meeting in May. I shared my theme and goals for the year at that time, however the South Dakota Auxiliary will actually feel or act no differently than it has over the years.

The South Dakota Medical Auxiliary is the oldest continuous auxiliary in the nation and was recognized for this distinction in 1985. Muriel Reding compiled our history at that time in her book *Profile of the Past*. When our auxiliary was founded in 1910, it began with eighteen physicians' wives who had accompanied their husbands to the 19th Annual Meeting and felt the need to organize. Their object was "to bring the wives of these physicians together in a spirit of good fellowship". Although we have expanded our purposes through our incorporation in 1982 these women's first objective is the basis for our accomplishments. Our membership now includes medical students' spouses, residents' spouses, and physicians' spouses. At this time we have 458 members.

Through the years the South Dakota Medical Auxiliary has accomplished many goals and has been

recognized for these at various National Conventions. We have also been honored by Virginia Stoltz's National Presidency. Considering our state's small population we have also been visible to National through several individuals who have served as officers on the national level or who have performed with 4077 TRASH at Confluence or other medical conventions throughout the United States.

We are now entering a time when it is less common to have a spouse at home. Many physician's spouses have professions of their own in addition to a family allowing them little **extra** time for another organization. Medical Auxiliary is not just another organization. Its members have more in common and a deeper understanding of the physician's role than almost anyone else. This organization offers its members many areas of interest; be it, legislation, health projects, fund raising, leadership roles, or social involvement. Its main purpose today is the promotion of the health and well-being of all through many programs adapted to the various social issues.

What we need from our physicians is the **gift of membership** for your spouse. It is an opportunity that will benefit not only your spouse but also you and your family. #

Jacalyn Slingsby

*Where you can still count on a
handshake and personal service.*



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AMA Physicians' Recognition Award

AMA Physicians' Recognition Award Recipients

Congratulations to the physicians in South Dakota who have earned the AMA Physicians' Recognition Award in the months of January - April, 1990.

January

Harold L. Frost, MD*	Rapid City	Edward T. Zawada, MD*	Sioux Falls
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February

Edward F. Anderson, MD*	Brandon	Karen J. Reinertsen, MD*	Sioux Falls
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March

Benjamin W. Chaska, MD*	Webster	Howard C. Pomeroy, MD*	Brookings
Edward P. D'Souza, MD*	Aberdeen	Richard P. Renka, MD*	Rapid City
Theodore L. Kitowski, MD*	Brookings	John R. Willcockson, MD*	Yankton

April

Wayne J. Anderson, MD*	Deadwood	Ralph A. Heirigs, MD*	Rapid City
Jerome W. Bentz, MD*	Platte	George J. Mangulis, MD*	Philip
Rock F. Boyd, MD*	Gettysburg	Mark J. Oppenheimer, MD*	Sioux Falls
James D. Collins, MD*	Mobridge	Richard L. Plummer, MD*	Sioux Falls
James E. Gaede, MD*	Mitchell	Larry L. Sittner, MD*	Sioux Falls
Charley Gutch, MD*	Sioux Falls	Calvin D. Sprick, MD*	Yankton

* members of the South Dakota State Medical Association

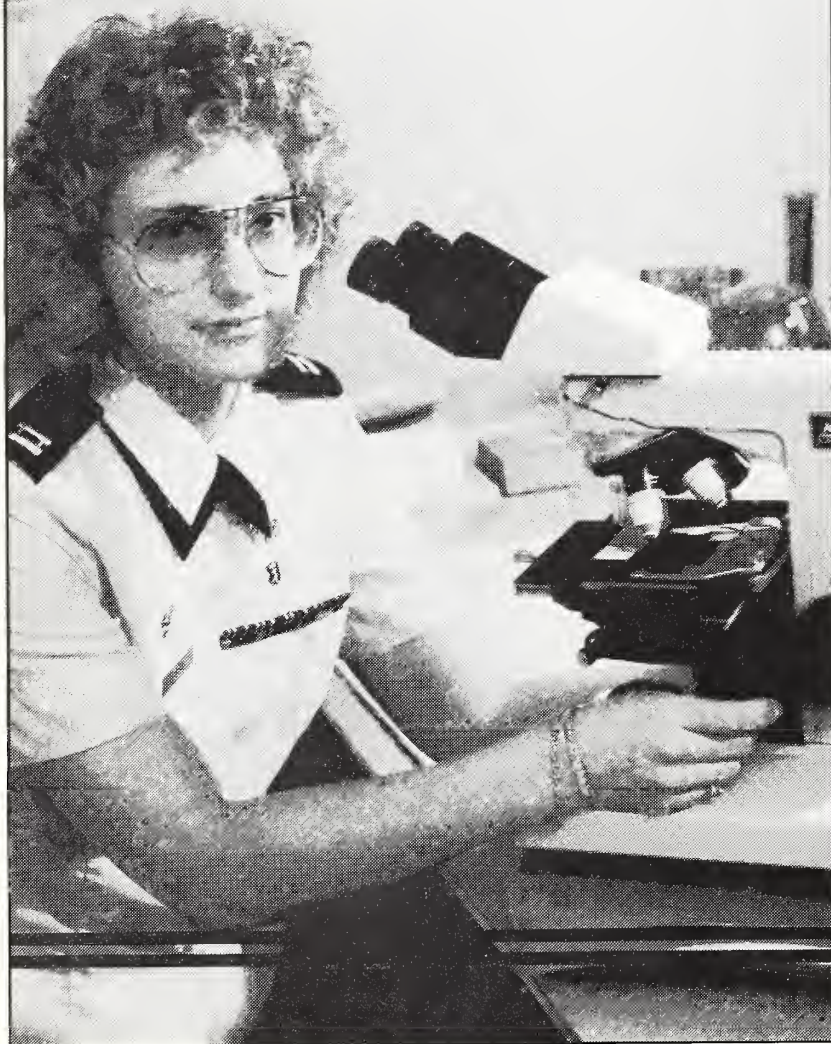
South Dakota Society Of Pathologists

Officers for 1988-89

Bradley B. Randall, MD, President
Roy G. Burt, MD, Vice President
Jerry L. Simmons, MD, Secretary-Treasurer



AIM HIGH



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New SDSMA Members

James M. Craig, MD
Tschetter Hohm Clinic
455 Kansas, SE
Huron, SD

Alex A. Falk, MD
1301 N 4th St
Aberdeen, SD

Theodore L. Kitowski, MD
300 22nd Ave
Brookings, SD

Scott J. Purintun, MD
Marshall County Medical Clinic
Box N
Britton, SD

Patrick L Retterath, MD
St Luke's Midlands Hospital
305 S State St
Aberdeen, SD

Sandra L. Van Gerpen, MD
SD Department of Health
523 E Capitol
Pierre, SD

GP

GP

R

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Anes

OBG

Correspondence

I would just like to comment briefly on Dr Jerry Freeman's article in the April issue of the *SOUTH DAKOTA JOURNAL OF MEDICINE* entitled "Beneficence in Medicine: A Call to Heroism". I found the article to be extremely well written, scholarly and topical. It pointed out many of the difficulties that we as physicians face in this age of medical economics, marketing and personal prosperity. These are the traditional aspects of being a physician, serving the needs of humanity.

We must not as physicians forget our special place in society and the important role we play in serving the needs of our fellow human beings.

Again, I congratulate Dr Freeman on his fine article.

Sincerely,
Michael W. Pekas, MD
Immediate Past President, SDSMA

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Family Practice

Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking a 7th BE/BC family practitioner for one of its expanding (12 physician) regional centers in northwestern Wisconsin; within approximately two hours of Minneapolis/St Paul and/or Lake Superior. The ability to perform cesarean sections is a prerequisite for this position. Construction for a new \$2 million clinic is scheduled for mid-1990. Position offers an excellent professional environment combined with an exceptional blend of recreational, cultural and educational opportunities. No start-up expense. Salary negotiable (\$90,000+) with outstanding fringe benefit package (includes clinic self-insured malpractice). Opportunity to practice broad spectrum family practice with on-site access to a variety of consultants and time to enjoy family and recreation. Send CV and references to:

David L. Draves, Director
Regional Development
1000 N Oak Avenue
Marshfield, WI 54449
or call collect at
(715) 387-5376

Family Practice

Family practice physician needed to join an established 14-physician state of the art clinic in a ranching community in South Dakota. Competitive salary guaranteed, plus generous tuition reimbursement-housing-transportation bonuses offered. Malpractice insurance covered. Limited call. Flexible schedule. Outdoor recreation abounds, including hunting, fishing, boating, skiing, and golfing. Cultural opportunities: Allied Concert Series programs. Send resume or inquiries to:

Helen S. Lindquist, Administrator
Five Counties Hospital and Nursing Home
PO Box 479
Lemmon, SD 57638
Telephone: (605) 374-3871

Family Practice - Hospital Sponsored Clinic Opportunity

Dynamic, growth-oriented hospital in beautiful North Central Wisconsin is seeking TWO family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact:

Dan McCormick, President
Allen McCormick
France Place, Suite 920
3601 Minnesota Drive
Bloomington, MN 55435
(612) 835-5123

Family Practice

Rural community, located in the heart of the Black Hills of South Dakota, is seeking a Board Certified Family Practice physician. Fully equipped clinic space available. Income guarantee provided. For more information contact:

Rebecca L. Cooper
Administration
Custer Community Hospital, Inc.
1039 Montgomery Street
Custer, SD 57730
Phone: (605) 673-2229

Orthopedic Surgeon

Upper Midwest. Another orthopedic surgeon needed: only 2 1/2 orthopedists now practicing at college town in upper midwest with population of 115,000. Present medical staff supportive. Free office with overhead and staff provided, malpractice, \$250,000 minimum cash guarantee, bonus. Call Walter F. Smith, PhD at (800) 221-4762 or (212) 599-6200.

REGIONAL ORTHOPEDIC PRACTICES

Lucrative orthopaedic practices available with several midwestern regional medical centers. Unique opportunities with highly competitive start up compensation packages which include income guarantees, paid malpractice and moving allowance along with additional desirable benefits. These are modern facilities with excellent peer association and up to date surgical equipment. Several locations available! Call: Gwyneth Anderson at (800)221-4762, or write to:

**E.G. Todd Associates
535 Fifth Avenue, Suite 1100
New York, NY 10017**

Radiologist For Midwest

Progressive hospital in Kansas with CT SCAN, mobile ultrasound and mammography seeks Radiologist. Income guarantee provided. Projected revenues exceed \$200,000. All insurances paid. One hour from two cities that both offer cultural and educational amenities. Call: Gwyneth Anderson at (800)221-4762, or write to:

**E.G. Todd Associates
535 Fifth Avenue, Suite 1100
New York, NY 10017**

Family Practice, Internal Medicine and General Surgery Practice Opportunities

Rural Lake Country Community is seeking the above practitioners to join a busy 12 physician multispecialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities and cultural activities abound. Salary and fringe benefits very liberal.

Send curriculum vitae or inquires to:

**Lake Region Clinic, PC
Attn: Joel Rotvold
PO Box 1100
Devils Lake, ND 58301
or call collect at (701) 662-2157 for further information**

INTERNIST FOR NEBRASKA

A growing regional medical center in Nebraska seeks an Internist to complement a group of highly qualified peers. Modern, progressive hospital will purchase equipment as needed. Competitive compensation package includes malpractice. Regional community for recreation, culture and shopping. Call Gwyneth Anderson at (800)221-4762, or write to:

E.G. Todd Associates
535 Fifth Avenue, Suite 1100
New York, NY 10017

General Internist with Psychiatry Interest

Marshfield Clinic multispecialty group practice with over 300 physicians is seeking a Medical Director for the in-patient Psychiatry Unit. A BC/BE internist with psychiatry experience is preferred. The medical directorship of the Psychiatry Unit is half time, and the applicant may develop the other portion of practice to meet his or her practice interest. This could include a private practice or noncontinuity of care practice such as Walk-in Clinic, Preop Evaluation or Employee Health Clinic. Starting salary is negotiable but very competitive, and the fringe benefit package is outstanding. Send CV and references to:

David L. Draves
1000 North Oak Avenue
Marshfield, WI 54449
or call collect:
(715) 387-5376.

General Internist with Interest in Preoperative Evaluations

Marshfield Clinic multispecialty group practice with over 300 physicians is seeking a BE/BC general internist to staff a Preoperative Evaluation Clinic. There is no hospital practice, night or weekend call. This is a half time position; and the applicant may develop the other half of practice to meet his or her practice interests which could include staffing a Walk-in Clinic, Employee Health Clinic or development of a private practice. Salary negotiable but very competitive depending on the type of practice developed, and the fringe benefit package is outstanding. Send references and CV to:

David L. Draves
1000 North Oak Avenue
Marshfield, WI 54449
or call collect:
(715) 387-5376

Internal Medicine

Upper Midwest. Fully developed internal medicine practice available at no purchase price in Upper Midwest college town with 115,000 population, 369 hospital beds and 373 SNF beds. Coverage and sub-specialty backup. Free office with overhead and staff provided, malpractice, \$108,000 cash guarantee. Call:

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Sr. Associate
E. G. Todd Associates
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New York, NY 10017
Phone:
Toll Free: (800) 221-4762
Collect: (212)599-6200

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South Dakota: Expanding physician-owned emergency group has opening for full-time career-oriented emergency physicians in Sioux Falls, Aberdeen and Yankton. Excellent benefits including malpractice, disability, health insurance, profit sharing, etc. Flexible work schedules, excellent working and living conditions.

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(307) 632-1436

or send CV to: EMP, PC
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82003

AIM HIGH

Be an Air Force physician in a sophisticated medical environment. The benefits are excellent and vacation consists of 30 days with pay per year. Talk to an Air Force medical program manager about quality lifestyle and quality practice with a non-contributing retirement plan if you qualify. Learn more about becoming an Air Force physician. Call: **Capt Thomas Rice collect 402-551-0928**

AIR FORCE

Fourth Annual Missouri Valley Family Practice Symposium Sponsored by the Yankton Medical Clinic, PC

July 20 & 21, 1990
Hillcrest Golf & Country Club
Yankton, SD

Key Note Speakers:
Dr. William P. Castelli
Framingham Heart Study
"Office Management of Hypercholesterolemia"
Dr. Marc R. Pritzker
Abbott Northwestern Hospital
"Update on Ventricular Arrhythmias"

This program has been reviewed and approved for
10 prescribed hours by the AAFP
and
10 credit hours of AMA Category I CME

Contact:
Lewis and Clark Area Health Education
1017 West 5th, Yankton, SD
or call
(605) 665-9005

Future Meetings

July

Pediatric Advanced Life Support, Ctr for CME, U of Neb Med Ctr, Omaha, NE, July 11-12. CME credit avail. Contact: Cindy Hanssen, U of Neb Med Ctr, Ctr for CME, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-5919 or toll-free 800-228-9630.

Advanced Cardiac Life Support Provider, Ctr for CME, U of Neb Med Ctr, Omaha, NE, July 17. CME credit avail. Contact: Cindy Hanssen, U of Neb Med Ctr, Ctr for CME, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-5919 or toll-free 800-228-9630.

The Advanced Medical Staff Seminar, Marriott's Tan-Tar-A Resort, Osage Beach, MO, July 20-22. Fee: \$440. 11 hrs AMA Category I credit. Contact: Joint Commission Customer Serv Dept at (708) 916-5600; or write: E&R Trust, Missouri Hosp Assoc, Attn: Charles D. Pardon, Vice Pres, Human Resources, PO Box 60, Jefferson, MO 65102.

8th Annual Medical Seminar, Plummer's Great Slave Lake Lodge, Northwest Territories, CANADA, July 21-28. 21.5 hrs CME credit. Contact: North Memorial Medical Centre, Minneapolis, MN. Phone: 1-800-665-0240.

Advances in Medicine, Snowmass, CO, July 25-29. CME credit avail. Contact: Marge Adey, Coord of CME, U of Neb Med Ctr, Ctr for CME, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-4152 or toll-free 800-228-9630.

August

Advanced Cardiac Life Support Provider, Ctr for CME, U of Neb Med Ctr, Omaha, NE, Aug 20-21. CME credit avail. Contact: Cindy Hanssen, U of Neb Med Ctr, Ctr for CME, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-5919 or toll-free 800-228-9630.

Incontinence in the Elderly, Center for CME, U of Neb Med Ctr, Omaha, NE, Aug 30. CME credit avail. Contact: Marge Adey, Coord CME, U of Neb Med Ctr, Ctr for CME, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-4152 or toll-free 800-228-9630.

September

Update on Gastro Intestinal Disease, Lincoln, NE, Sept 8. CME credit avail. Contact: Sally O'Neill, PhD, Creighton U, CME Div, 2500 California St, Omaha, NE 68178. Phone: (402) 280-1830 or toll-free 800-548-2633.

15th Annual South Dakota Perinatal Association Conference, Perinatal Care: Working Toward a Common Goal, Ramkota Inn, Sioux Falls, SD, Sept 13-14. CME credit avail. Contact: Debbie Meyer, SDPA, 1100 S Euclid, Sioux Falls, SD 57105. Phone: (605) 333-7155.

Advances in the Management of Gynecologic Cancer, Kiewit Conf Ctr, Omaha, NE, Sept 14. CME credit avail. Contact: Sally O'Neill, PhD, Creighton U, CME Div, 2500 California St, Omaha, NE 68178. Phone: (402) 280-1830 or toll-free 800-548-2633.

Pain Management Strategies for Primary Care, Hennepin County Med Ctr, Minneapolis, MN, Sept 14. Fee: \$95. 7 hrs CME credit. Contact: Frances Ewing, Registrar, CME, Off of Academic Affairs, Hennepin County Med Ctr, 701 Park Ave, Minneapolis, MN 55415. Phone (612) 347-2075.

Pediatric Epilepsy Update: A Primary Care Physician's Perspective, Omni Northstar Hotel, Minneapolis, MN, Sept 14-15. Fee: \$120. 10 hrs AAFP & AMA Category I credit. Contact: Catherine Glunz, Gillette Children's Hosp, 200 E University Ave, St Paul, MN 55101. Phone: (612) 229-3870.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

The American Medical Association has announced the creation of *American Medical Television*. This is a 2-hour program on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time, starting Sunday, January 8, 1989. American Medical Television carries CME credits for its programs.

Directory of this Month's Advertisers

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THE SOUTH DAKOTA JOURNAL OF MEDICINE thanks these companies for advertising in this Journal.



VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: **Angioedema:** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: **General:** **Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hypertension: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: **Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nifedipine, calcium-channel blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (7.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of the drug in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hypotension.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: **Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hypotension: In patients with heart failure who have hypotension (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure.) **WARNINGS and PRECAUTIONS:** Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
5. *Am J Gastroenterol* 1989;84:769-774.



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Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

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Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H₂-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

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an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, prenatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

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Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request



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Medicare Inequities and Dr Richard Mulder

Robert E Van Demark Sr, MD, Editor

As a medical student at the School of Medicine, the University of South Dakota and as an intern at McKennan Hospital, Sioux Falls, South Dakota, Dr Richard Mulder, a graduate pharmacist,¹ earned the reputation of a hard worker and a devoted student of medicine. In his twenty years at Ivanhoe, Minnesota (population 750) he has continued these practices.

While on a Bush Fellowship in 1987 he changed his studies from geriatric medicine and rural health care, to concentrate on inequities to rural health care patients and senior citizens under the Medicare system.

Single-handedly at first, he has now become a nationally recognized expert^{2,3} in the analysis of the distribution of Medicare's costs and benefits. Dr Mulder's studies indicate rural Medicare patients are subsidizing the urban Medicare patients by more than \$18 billion a year, a real economic drain for the rural areas, year after year.

Nationally each Medicare patient pays the same for services. Yet there is a difference in total benefits of 450 percent in the distribution benefits in favor of urban Medicare patients whose allowances for supplies and services are paid at a much higher rate than those for the minority rural Medicare patients. Is this American

equality and justice?

In his study Mulder has made 21 trips to Washington DC the past three years to gather statistics and to meet with numerous congressional and government figures including the Secretary of Health and Human Services. He has played a significant part in the action of the 100th Congress in accepting the RBRVS and establishing a more fair reimbursement fee scale for rural America.

Unfortunately this will not begin to occur until 1992 and will not be completed until 1997, when it may be too little and too late. Mulder states "In South Dakota there could be eight to eleven hospitals closing the next three years". He further points out that one rural hospital goes out of business every ten days.

His present goal concerns the 37 million people who do not have any form of health care coverage.

Richard Mulder has demonstrated that empathy, genuine interest and hard work can accomplish much for rural America.⁴

REFERENCES

1. Brown, V: SDSU alumnus expert in problems of Medicare. SDSU Alumni News 1990;79:2;pp 3.
2. McLrath, S: Congress holds rural care key. Trouble beyond Medicare inequity; doctors fight "medical colonialism". AM News (AMA) May 25, 1990, pp 3.
3. Reece RL: A crusading knight from Ivanhoe. Minn Med April 1989;72:201-205.
4. Tackett, M: Rural Towns Face Information Loss. Chicago Tribune, Sunday, Sec. 1, April 22, 1990. #

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NEXT MONTH

Transactions of the South Dakota State Medical Association 109th Annual Meeting, May 31-June 2

About the Cover

South Dakota's Chapel in the Hills is inspiring to all, especially in the spring. Its intricate portal carving, fierce dragon heads, and heavy wooden crosses give the surrounding ponderosa pine forest a feeling of Scandinavian timelessness and medieval faith. The Chapel, an exact replica of Norway's 800-year-old Borgund Stavkirke, is located in Rapid City., (Photo courtesy of the South Dakota Department of Tourism)

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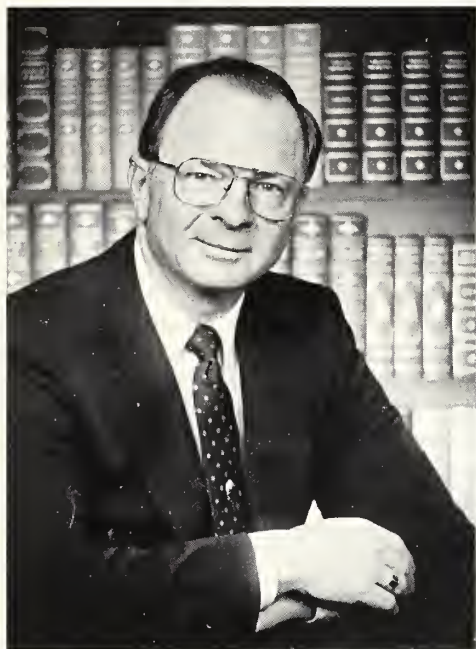
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President's Page



Jerome A. Eckrich, Jr, MD, President, South Dakota State Medical Association

By the time this letter appears in print, I will have just returned from the annual AMA meeting in Chicago. With the number of changes and new rules affecting medicine, which are on the government's drawing board, I will be watching very closely the strategies that our national organization intends to employ in dealing with some of these problems. In a subsequent letter, I will report on the most pertinent issues facing organized medicine in the coming year and how the national AMA organization plans to deal with these issues.

Some of the subjects which are scheduled for debate involve bills to ease the Medicare paperwork burden, which is consuming so much of our time better spent on the care of our patients. Another urgent concern for those of us practicing in rural communities is the inequity in Medicare reimbursement between rural and urban medical practices. Additional subjects of interest will concern the regulations related to private laboratories operated in physicians' offices as well as a number of health issues such as drug use among teenage youth, the present controversy over AIDS funding, civil rights for AIDS victims, etc.

Another area which I expect to see debated at the national meeting is the subject of stipends paid by hospitals to physicians for PRO and quality assurance committee work within the hospital, Medicare reviews,

PRO reviews, etc. Some hospitals are already paying staff members for these duties, which were once considered part of medical staff obligations. Since the time spent and the responsibilities involved in performing these jobs have increased at such a prodigious rate, it is becoming more and more apparent that reimbursing physicians for their time in performing these services is a concept whose time has come.

These and other more locally encompassed matters such as greater participation among our physicians in their state association and a greater sense of collegiality, comradery, and esprit de corps among our physicians will be some of the issues with which I will be concerned over the coming year. I am looking forward to serving all of you and in promoting your interests and the interests of your patients and hope that you will feel that the South Dakota State Medical Association is truly your association responsive to your concerns and needs over the next coming months. #

Jerome A. Eckrich

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Decreasing Numbers of Patients for Vaginal Hysterectomy and Plasty¹

Brooks Ranney, MD²

ABSTRACT

Among 2904 patients who needed hysterectomy, the numbers of patients who needed vaginal hysterectomy and plasty have decreased steadily during the 40 years, 1948-88, although indications have remained constant. There has been a steady reduction in the severity and numbers of patients with uterine sagging. Likewise, there has been a notable decrease in the severity of, and numbers of, patients with old perineal lacerations. The major reason for these changes is the steady improvement in prior obstetric delivery techniques. Both graphic and statistical evidence is presented.

This is a retrospective study of the medical records and punch cards of 2904 patients who needed hysterectomies, which were performed by the author between 1948 and 1988. This portion of the study seeks answers to the questions: 1) Are the numbers of patients who need vaginal hysterectomy and plasty decreasing? 2) If so, what are the probable reasons?

Follow-up, by periodic examination in the office, has continued until the present time, or until death for 1954 of these patients (67.28%). All patients were followed one to 37 years after hysterectomies (average 14 years). Only 281 patients died, one to 37 years after hysterectomies (average 14.77 years) at patient ages ranging between 40 and 100 (average 71.98). Causes of death are listed in Table I.

General Findings:

Graph I shows that there has been a progressive decrease in the yearly incidence of vaginal hysterectomy and plasty (dash line) particularly during the past two decades (dot line). At the same time, there has been a much greater increase in the need for abdominal hysterectomy (solid line).

These changes have occurred despite the facts that the author enjoys performing vaginal operations and accomplishes them with reasonable skill.

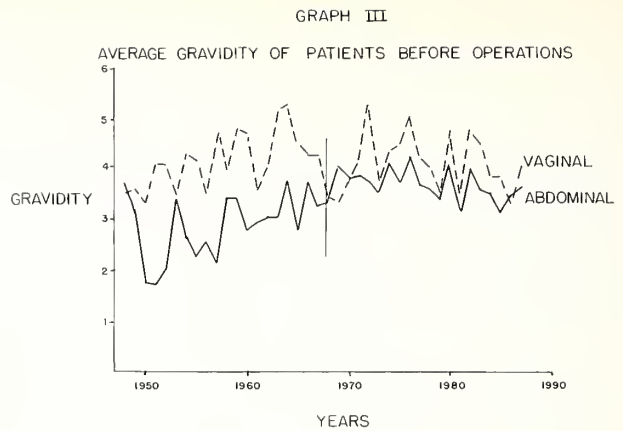
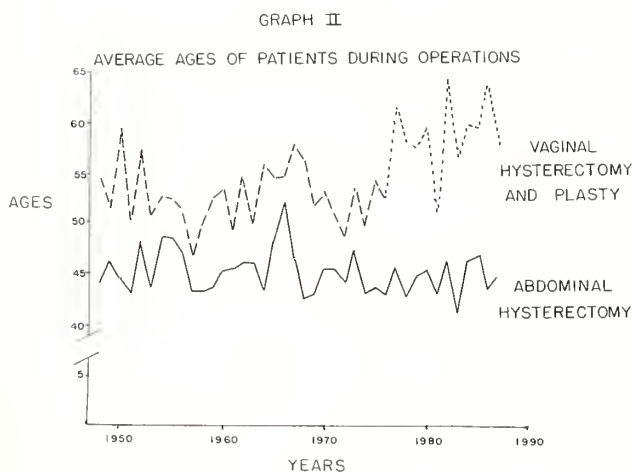
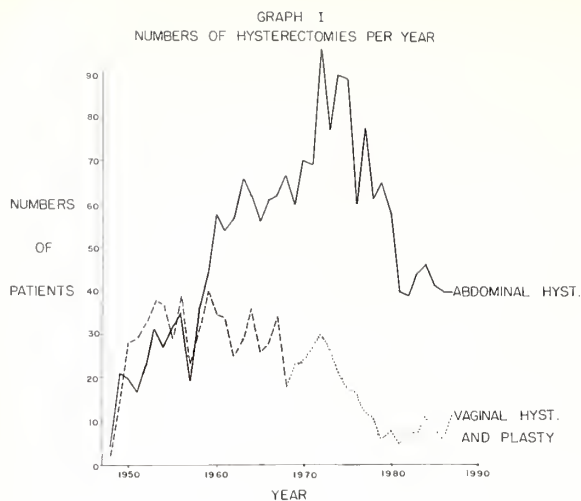
During residency training at Northwestern University Medical School, 1945-48, under the tutelage and

influence of George H. Gardner, Ronald Greene, John Brewer, Eugene Edwards and H. O. Jones, our indications for the use of vaginal hysterectomy were well established and have not changed much since then.

Table I					
Causes of Deaths (281) Among 1954 Women Who Had Prior Hysterectomies					
Gynecologic:	Carcinoma	- Ovary	17		
		- Endometrium	4		
		- Cervix	1		
			22		
Possibly related:	Carcinoma Breast		20		
	Hip Fracture (Osteoporosis)		4		
			24		
Others:	Cardiac Conditions		95		
	Stroke		59		
	Carcinoma	- Colon	13		
		- Stomach	9		
		- Kidney	7		
		- Leukemia-Lymphoma	6		
		- Pancreas	6		
		- Lung	5		
		- Gallbladder	2		
		- Esophagus	1		
		- Urinary bladder	1		
		- Bone	1		
					51
		Pneumonia		8	
		Diabetes		6	
Peritonitis		5			
Hepatic Failure		3			
Anemia		2			
Aortic Aneurysm		2			
G. I. Hemorrhage		2			
Parkinsonism		1			
Auto Accident		1			
			281		

¹ Presented at the Seventh Annual Meeting of the Society of Gynecologic Surgeons, New Orleans, LA, March 7, 1989.

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3) more frequent use of postmenopausal estrogens, it now takes women in our region an average of 6 years longer to develop prolapse-related symptoms and findings, for which they seek gynecologic care.

Gravidity:

At the time of hysterectomy, gravidity ranged from 0 to 20 (Graph III). However, average gravidity before vaginal hysterectomy was 4.15 (dash line); before abdominal hysterectomy, 3.45 (solid line). More specifically, during the first two decades of this study, average gravidity before vaginal hysterectomy was 4.12; before abdominal hysterectomy, only 2.91--a significant difference of 1.21.

After 1968 this difference became much less. During the two recent decades, perhaps improvements in prior obstetric techniques permitted the noted increases in gravidity of mothers who later needed abdominal hysterectomy. That is, despite more prior babies (delivered with improved obstetric care), now they did not need vaginal hysterectomy and plasty so often.

Uterine Relaxations:

Since "degrees" of uterine relaxations (Graph IV) have been interpreted variably in different institutions, we have chosen instead to use the terms: Descensus--sagging of the uterus within the pelvis and vagina; Partial Prolapse--protrusion of the cervix, but not all of the uterus, out of the vulva; Procidentia--protrusion of the entire uterus (and various vaginal components) out of the vulva.

Graph IV shows that there were 79 instances of procidentia (dot line) during the first 20 years, and only 13 instances during the last 20 years of this study. Likewise, a large majority of patients with partial prolapse (dash line) and descensus (solid line) occurred during the first half of this study.

Because of associated large pelvic tumors, cancers, endometriosis, adnexal masses, adhesions, etc, some patients who had mild amounts of uterine descensus (dot-dash line) received abdominal hysterectomies

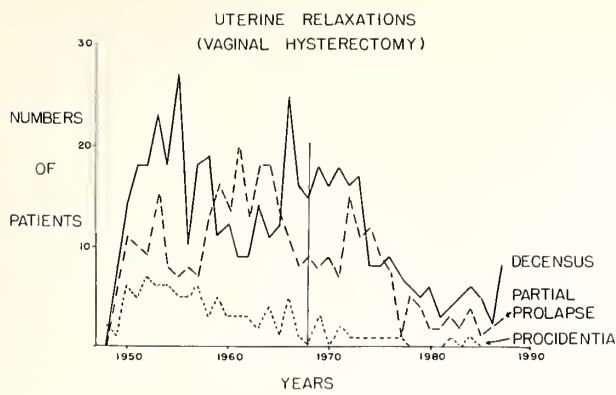
They are neither so narrow as those of H. A. Kelly¹, nor so broad as those of N. S. Heaney², but fit more readily into the categories described by Virgil S. Counsellar³, Laman A. Gray,⁴ and Robert F. Porges.⁵

To seek probable causes of the decreasing need for vaginal hysterectomy and plasty, we have studied age, gravidity and respective pelvic relaxations, and have related these findings to known characteristics of these patients' obstetric experiences.

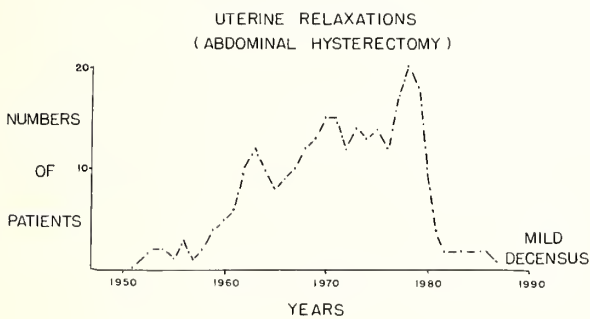
Age:

Patient ages at the time of hysterectomy ranged from 18 to 86 (Graph II). The average age at vaginal hysterectomy was 53.27 (dash line). These patients were often postmenopausal, and averaged more than 8 years older than the average age (45.16) of patients at the time of abdominal hysterectomy (solid line). One should note that the average age of women at vaginal hysterectomy during the most recent decade (dot line) was 59.2--about 6 years older than the overall average for vaginal hysterectomy patients. Perhaps because of 1) less prior obstetric trauma, 2) slower aging, and/or

GRAPH IV



GRAPH V



(Graph V). Only 11 of these occurred in the first 10 years of this study. Later they were more frequent.

In order to evaluate the severity and numbers of uterine relaxations with greater perspective (Table II), we weighted each instance of procidentia with the number 4; each partial prolapse with the number 3; each descensus with the number 2; and each mild descensus with the number 1. These numbers were added together for each of four 10-year intervals, and were divided by the total numbers of hysterectomies during respective decades. Hysterectomy patients averaged many more "prolapse points" (1.504) during the first

decade of the study, and decreased each subsequent decade to a recent low average of 0.459 prolapse points. This scale shows that the number and severity of uterine relaxations were reduced to only 30% among the 555 patients who were operated upon during the years 1978-87, when compared to the 502 patients who were operated upon during the years 1948-57. This reduction in uterine relaxations was progressive from the first to the last.

Comment:

What are probably the most important causes of this reduction in relaxations of the supporting tissues of the uterus? Answer: The number and location, but primarily, the methods of prior obstetric deliveries. The evidence follows:

During the first 20 years of this study, most of the patients who needed vaginal hysterectomy and plasty had one, or many, prior "home" deliveries or "nursing home" deliveries between the years 1900-1950. Many of these patients had acquired severe pelvic relaxations. Whereas there are still a very few women who had these traumatic obstetric deliveries and who still need vaginal hysterectomy and plasty, most such patients in our region already have had their repairative operations.

Conversely, during the past 40 years, most women in this region (99%) have had their babies delivered in hospitals; a majority, by obstetricians. Severe resultant uterine relaxations were not common, and now we are seeing patients with minimal prolapse.

Most specifically, punch cards and patient records were studied concerning 7000 women who were delivered by the author between 1948 and 1971. Among these, only two mothers were found for whom we had provided all deliveries, and who later needed a vaginal hysterectomy and plasty. One was a Gravida X, whose last baby weighed 4700 grams. The other was a Gravida VIII, whose largest baby weighed 5500 grams. All others who later needed vaginal hysterectomy had one to 15 variably traumatic deliveries performed by others. We have delivered one woman 20 times;

Table II
Uterine Relaxations per 2904 Hysterectomies
(Weighted Scale)

Time Interval	(Weighted Scale)				Total Prolapse Points	Numbers of Hysterectomies			Weighted Prolapse pts. per Hysterectomy
	During Vaginal Hysterectomy Abd. Hyst.					Vaginal	Abdominal	Totals	
	Partial Procidentia	Mild Prolapse	Mild Descensus	Mild Descensus					
	4 points	3 points	2 points	1 point					
1948-57	196	240	308	11	755	273	229	502	1.504
1958-67	116	447	276	76	915	319	556	875	1.046
1968-77	44	264	264	177	709	217	755	972	0.729
1978-87	8	84	100	63	255	81	474	555	0.459

another 16 times; and several 15 times, without subsequent need for vaginal hysterectomy and plasty.

The Perineum:

Eight years ago, in an article entitled "Posterior Colpopерineoplasty," published in the *SOUTH DAKOTA JOURNAL OF MEDICINE*⁶, we presented evidence that the female perineum may be protected from undue stretching and tearing by careful obstetric techniques. Two paragraphs and Table III have been reproduced here with permission.

Most patients operated upon during the first half of this study had had one or more home deliveries supervised by other physicians, during which many mothers strained down inordinately, and during which episiotomies were performed rarely, or were tardily performed median niches (Table III). If sutures were used, it was to cover lacerations loosely with epithelium. As a result, 468 of these patients (82.8%) had old lacerations of the perineum and needed extensive perineoplasties; 40 of these old lacerations were fourth-degree and 156 were third-degree.

Conversely, many of the patients operated upon during the last half of this study had been delivered previously in the hospital, by this author. Some fetal heads had been gently delivered with outlet forceps, and most perineums had benefited from individual chosen episiotomies and repairs. As a result, only 104 of these 710 patients (14.6%) had any notable old perineal lacerations, of which 45 were merely first-degree and 42 were second-degree; most needed only minimal perineoplasties.

Table III Effects of Prior Delivery Techniques Upon Subsequent Perineal Support		
Extent of Perineal Laceration	Numbers of Old Perineal Lacerations	
	1st Half of Study Mostly Home Deliveries 565 Patients	2nd Half of Study Mostly Hospital Deliveries 710 Patients
1st Degree	86	45
2nd Degree	186	42
3rd Degree	156	15
4th Degree	40	2
TOTALS	486 = 82.8%	104 = 14.6%

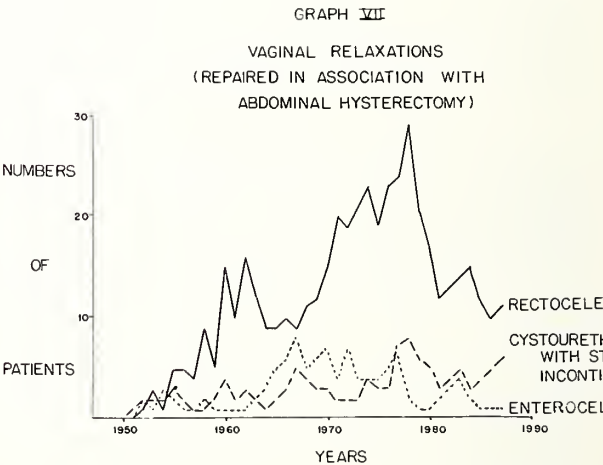
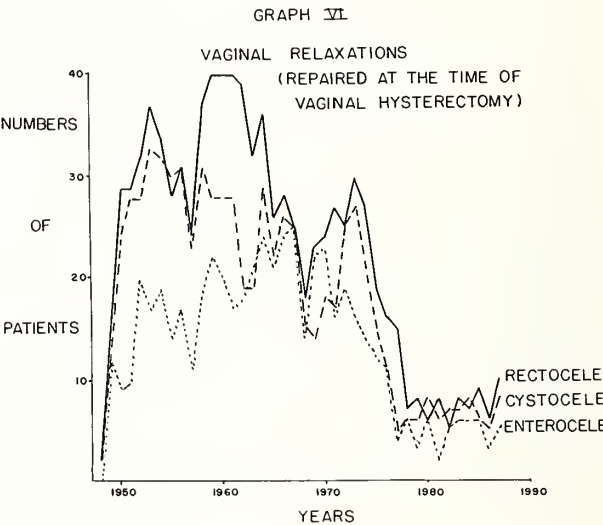
Vaginal Relaxations:

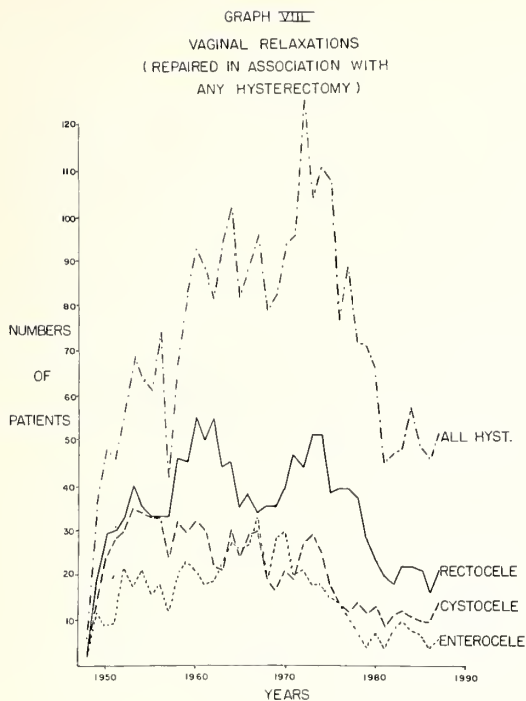
Although the careful obstetrician can do much to prevent or repair uterine sagging and perineal tears, what evidence have we concerning vaginal relaxations? Graph VI shows the yearly incidence of enteroceles (dot line),⁷ cystoceles (dash line), and rectoceles (solid

line), which were repaired at the time of vaginal hysterectomy. Generally, these curves reflect the changing need for, and incidence of, vaginal hysterectomies (Graph I). The larger lesions tended to be concentrated in the first half of this study, but there is no graphic or statistical evidence of this.

However, Graph VII shows some small enteroceles (dot line) which were repaired abdominally in association with abdominal hysterectomy. Also, some patients with stress incontinence due to cystourethroceles (dash line) were repaired with anterior bladder-neck suspensions after abdominal hysterectomy. Additionally, a much larger group (two-thirds) of these patients had symptomatic rectoceles (solid line) repaired by posterior colpopерineoplasty immediately after abdominal hysterectomies.

The respective numbers of patients on Graphs VI and VII seem to complement each other. Therefore, they were combined in Graph VIII, which shows all enteroceles (dot line), cystoceles (dash line), and rectoceles (solid line), compared with all hysterectomies (dot-dash line). Although there is a slight concentra-





tion of vaginal relaxations relative to total hysterectomies during the early years, and a slight tapering off thereafter, the graph lines tend generally to reflect each other.

Vaginal Hysterectomy without Vaginal Plasty:

One should note that 40 patients who had vaginal hysterectomies did not require vaginal plasties (4.5%). In fact, we performed episiotomy and simple vaginal hysterectomy for several virgins whose uterine pathology, uterine mobility and pelvic space made the vaginal approach preferable. But, most patients (95.5%) needed some form of vaginal plasty in conjunction with their vaginal hysterectomies.

Morcellation:

There were 65 patients (7.39%) in whom the cervix was split and morcellation was needed to complete the vaginal hysterectomies, either because of 1) large uterine size or 2) space restrictions of severely platypeloid or anthropoid pelvis.

Prior Pelvic Operations:

Prior pelvic operations were not absolute contraindications to vaginal hysterectomy⁸ Much more important characteristics were 1) uterine size, 2) uterine mobility, and 3) the shape and space between pubic bones.

Fifty-three of these patients had prior vaginal plasty procedures without hysterectomy, performed by others, which had not solved their problems, but ag-

gravated some. Repeat vaginal plasty on these scarred vaginas is always more difficult.

Prior to 1950, uterine suspensions to the abdominal wall had been a commonly performed operation. Among 113 patients with these old uterine suspensions who needed hysterectomy later, 39 had so much uterine mobility and pelvic sagging that we elected to perform vaginal hysterectomy and plasty. In only one such patient was it necessary, also, to operate abdominally to disentangle dense adnexal adhesions.

Later Vaginal Relaxations:

Thirty-six patients developed symptomatic cystoceles and/or rectoceles which needed plasty, an average 9.8 years after simple abdominal hysterectomies. However, only five symptomatic cystoceles developed an average of 21 years after vaginal hysterectomy and posterior colpopерineoplasty.

Comment:

We have presented evidence that careful obstetric techniques may reduce subsequent uterine sagging and can protect against subsequent perineal relaxation, thus reducing the numbers of patients who need vaginal hysterectomy and plasty.

However, vaginal stretching, tearing, or avulsion of some degree is bound to occur as the term fetal head and torso pass through the vagina. At best, there is only flimsy evidence that these vaginal relaxations may be reduced in severity, and slightly in number, by prior careful delivery techniques. So, we probably will need to continue to repair some vaginal relaxations, more often in conjunction with abdominal hysterectomy, but less often in conjunction with vaginal hysterectomy.

The effects of the recent higher cesarean section rates upon later gynecologic repair operations probably will not be measurable until about 1995. Our cesarean section rate from 1948 through 1971 was 5.2%. One may predict that the modern era of more cesarean sections will have caused less subsequent pelvic relaxations, but more dense adhesions between the bladder and the cervix!

Although inherited and nutritional factors do contribute toward pelvic sagging, the avulsions of supporting tissues caused by traumatic childbirth contribute much more, and methods of delivery do make a long-term difference.

Individually meticulous obstetric deliveries, and more frequent deliveries by section, probably account for the reduced number of vaginal hysterectomies and plasties in our hospitals and on our gynecologic teaching services during recent years.

REFERENCES

1. Kelly HA. Gynecology, New York. 1928, Appleton, p 444.

2. Heaney NS: A report of 565 vaginal hysterectomies performed for benign pelvic disease. *Am J OB Gyn* 1934;28:751.
3. Counsellar VS: Vaginal hysterectomy. *OB Gyn* 1953;1:84.
4. Gray LA: Indications, technics, and complications in vaginal hysterectomy. *OB Gyn* 1966;28:714.
5. Porges RF: Changing indications for vaginal hysterectomy. *Am J OB Gyn* 1980;136:153.
6. Ranney B: Posterior colpoperineoplasty. *SD J Med* 1982;35:5.
7. Ranney B. Enterocoele, vaginal prolapse, pelvic hernia: recognition and treatment. *Am J OB Gyn* 1981;146:53.
8. Carpenter RJ, Pedro S: Vaginal hysterectomy following pelvic operation. *OB Gyn* 1967;30:394.

AMA's ADDRESS AND PHONES CHANGE AUGUST 27

The staff of the AMA will be moving into leased space in a new headquarters building in Chicago, beginning August 16.

Most of the AMA staff will move over an 11-day period and all will be in their new offices by August 27. The new address will be **515 North State Street, Chicago 60610**. The general office phone number will be (312) 464-5000.

In 1985-86, the AMA undertook an extensive study to help the Association decide what to do about its aging headquarters building, which was becoming increasingly more expensive to operate and maintain. The original building dates back to 1902. The decision to become the prime tenant in a developer's larger office building was found to be the fiscally sound solution.

South Dakota Society Of Pathologists

Officers for 1988-89

Bradley B. Randall, MD, President
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Correspondence

Dear Sir:

In the April, 1990, edition of the *SOUTH DAKOTA JOURNAL OF MEDICINE*, Dr Jerome W. Freeman made an excellent plea for beneficence in medicine. In discussing the topic, he cited the four principles of medical ethics:

- 1) Autonomy (the patient's right to self determination)
- 2) Non-maleficence (do no harm to the patient)
- 3) Beneficence (doctor should work for the good of the patient)
- 4) Justice (fairness in resource allocation)

While autonomy and non-maleficence are well ingrained in the doctor's training and practice, beneficence (charity) needs attention and was well proclaimed in this paper. This is especially true with the changing emphasis from a care giving profession to an industrialized profession with its marketing, competition, and other distractions.

This was emphasized in a recent article by Lundberg and Bodine, editors of the *JAMA* and the *ABA Journal*, respectively. They felt fifty hours should be given to the poor, or the equivalent of one week per year. This can be accomplished both "at the office" or in other settings within the community.

Not emphasized was the last of the four principles, justice. Rather than (fairness in resource allocation), this principle has to be broadened to include all aspects of patient advocacy.

In our Pledge of Allegiance, there is a line that reads "with liberty and justice for all." We, as physicians, have been quick to grasp the liberty part of the pledge. We have not yielded our autonomy at any cost. At the same time we have been slow to accept the justice part of the pledge.

Over the past five years, while helping out at the "Banquet", a soup kitchen serving the poor and needy of Sioux Falls, the director told the following story to the volunteers.

"This kitchen is like a rescue mission at the bottom of a fast flowing river. We are pulling the people out of the river, if only for a short period of time, and giving them food and social contact. They may well fall in again requiring frequent rescue." If we were to expand the metaphor medically, we would say that we have developed emergency facilities, ambulances, hospitals and sophisticated technology for the care of the drowning victims.

But the director of the "Banquet" would go on to say that what was really needed was someone to go to the top of the stream and determine why these people were

falling into the river. Only then might we have the chance to prevent the situation.

Beneficence (charity) is fishing the victims out of the river. Justice is preventing them from falling in. How are we to proceed?

My teen-age son has a sign on his bedroom door that reads as follows:

FIRST
Straighten up
your room
THEN
The world

This same philosophy can be applied to providing justice for our patients. We must first become their advocates on a one to one basis. Where there is inequity, it must be recognized and corrected. Where there is inadequate care, lack of access or preferential treatment, it must be rectified.

Only by becoming our patient's advocates can we bring about justice, and this must start in our own room.

Sincerely,
H. Phil Gross, MD
Rosa, CA

REFERENCES

1. Lundberg GD, Bodine L: Fifty hours for the poor. *JAMA* 1989;12;21:3045.

Dear Sir:

Cowie et al¹ reported an increased incidence of renal failure associated with type II diabetes in blacks. The accompanying editorial by Rostand² suggests that this finding may extend to other minority groups. Our impression has been that the disparity is even more marked in the American Indian population. A review of dialysis units serving the Sioux Nation in western South Dakota indicates 42 of 55 Native Americans (76%) on dialysis had type II diabetes compared to 2 of 33 whites (6%). (See Table I) The numbers are particularly impressive in the context of the population (approximately 70% white) yielding rough ratios of 2/100,000 in whites and 98/100,000 in Native Americans.

Nelson et al³ have reported similar findings in Pima Indians but this small homogeneous population group is known to have an exceptionally high incidence of diabetes, hypertension and obesity. Our preliminary data suggests this phenomena is also associated with a larger unrelated tribal group not previously known to have a similar incidence of these risk factors. Data com-

Table I				
Dialysis Unit	Race	No.	Type II Diabetes	%
Rapid City Regional	White	26	2	8
	Indian	10	9	90
Pine Ridge	Indian	21	14	67
Eagle Butte	Indian	10	8	80
St. Mary's(Pierre)	White	7	0	0
	Indian	6	5	83
Rosebud	Indian	8	6	75
Total	White	33	2	6
	Indian	55	42	76

plied by the Aberdeen Area Indian Health Service⁴ indicates that 89% of new dialysis patients have type II diabetes which is not appreciably different from the 95% reported by Nelson et al³ for the Pima.

Although access to health care services for diabetic patients living in the remote rural areas of western South Dakota is problematic for whites as well as Native Americans, socioeconomic factors, as suggested by Rostand² and by Teutsch et al,⁵ may still play a major role. It is noted, however, that eliminating type II diabetic patients from the analysis yields approximately equal rates of 30/100,000 for dialysis from all other causes for both whites and American Indians. This suggests that virtually the entire excess dialysis rate in our American Indian population is associated with type II diabetes.

REFERENCES

1. Cowie CC, Port PK, Wolfe RA, Savage PJ, Moll PP, Hawthorne VM: Disparities in incidence of diabetic end-stage renal disease according to race and type of diabetes. *NEJM* 1989;321:1074-1079.
2. Rostand SG: Diabetic renal disease in blacks--inevitable or preventable? *NEJM* 1989;321:1121-1122.
3. Nelson RG, Newman JM, Knowler WC, Sievers ML, Kunzelman CL, Pettitt DJ, Moffett CD, Teutsch SM, Bennett PH. Incidence of end-stage renal disease in type II (non-insulin-dependent) diabetes mellitus in Pima Indians. *Diabetologia* 1988;31:730-736.
4. Rhoades ER, in Report to Congress on End Stage Renal Disease Among American Indians in the Aberdeen Area Indian Health Service. April 1989.
5. Teutsch S, Newman J, Eggers P: The problem of diabetic renal failure in the United States: an overview. *Am J Kidney Dis* 1989;13:11-13.

Sincerely
 Steve Haas, MD
 USD School of Medicine,
 Department of Internal Medicine
 Rapid City
 Ruggles M. Stahn, MD, MPH
 PHS Indian Hospital
 Rapid City

Opinions expressed in this letter are those of the authors and do not necessarily reflect the view of the Indian Health Service.

96% of patients
 don't ask about
 their medicines,¹
 but 72% want more
 information.²

Don't disappoint them.



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¹ FDA survey, "Patient Receipt of Rx Drug Information", 1983

² A Study of Attitudes, Concerns, and Information Needs for
 Rx Drugs and Related Illnesses, CBS Television Network
 Consumer Model Survey, 1983



Jacalyn Slingsby, President, South Dakota State Medical Association Auxiliary

Promotion of FAMILY

When I was selecting a theme and goals for my year as South Dakota state president, I thought about what has influenced my life and more of my decision-making process than anything else. I believe it is FAMILY. I do know it is the reason my husband and I chose South Dakota as the place to establish his medical practice. Both he and I had lived in many parts of the country and world, which are in some ways more desirable than South Dakota. It was the closeness to our families, however, which made us consider Rapid City. At this time, it is now difficult for us to imagine another place which can offer friendlier people, a more beautiful environment or more opportunity.

The theme for the 1990-91 South Dakota State Medical Auxiliary will be the Promotion of FAMILY--that "positive influence" with which we should all be blessed.

It has often been said the people from the midwest have a good sense of values and a strong work ethic. These ideal attributes are the result of a "positive parental influence." Today, our physicians see many serious health problems including teen pregnancy, child abuse, drug and alcohol abuse and teen suicides all of which can be linked to a loss of this "positive influence". A physician's schedule often places a burden on his or her own family's time together. However, most physicians make this a priority and often find unique ways to develop this closeness and "positive influence".

Recently a physician in my community was featured in a news article for his involvement in a reading program at his daughter's grade school. What a wonderful way to provide that "positive influence". Physicians are among the pillars in a community, and must provide more of these examples.

This Promotion of FAMILY is also closely related to the primary goal of the AMA Auxiliary President, Norma Skoglund; that goal being an increased awareness of the need for more volunteerism through the physician and the physician-spouse. South Dakota's communities already have this volunteerism which is providing a "positive parental influence"; we just need to find more ways to heighten the public's awareness. All of this will greatly improve the community's quality of life and enhance the image of our physicians. #

Jacalyn Slingsby

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Worker's Compensation, an Overview for Physicians

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The passage of Senate Bill 194 permitting an employee covered by worker's compensation to choose his¹ own physician or other health care provider to treat work-related injuries has prompted this article. However, since the Worker's Compensation Act can be somewhat esoteric for many people, including physicians, it seemed like a good idea to provide an overview of the worker's compensation system for physicians. The subject of worker's compensation has been discussed and refined since the turn of the century by countless court decisions and by multi-volume treatises. While such a body of knowledge cannot be imparted in a single article, this overview should acquaint practitioners with the fundamental workings of the worker's compensation system as they relate to the practice of medicine. The "choice of doctor" legislation will also be addressed within the context of the worker's compensation system.

Historical Development of Worker's Compensation²

Prior to the advent of the 20th Century, workers indeed faced a meager chance of recovery for work-related injuries. Their remedy was a common-law action for negligence against the employer, which required them to prove that the accident and their resulting injury was the result of the legal fault of the employer. This posed a difficult proposition at best, since the worker was faced with the prospect of proving negligence, that is, that the employer breached a duty of due care owed the employee. Additionally, the employer had the defenses of the fellow-servant rule (the employer was not liable for injuries caused by the negligence of a fellow servant), contributory negligence (the employer was not responsible for injuries caused by the worker's own negligence), and assumption of risk (the employer was not responsible for risks knowingly assumed by the employee). One statistical survey conducted in 1907 disclosed that only about seventeen percent of all injury accidents were caused by negligence or fault of the employer.

While this situation made some sense in a fault-based system of personal injury jurisprudence, it did create an

ever increasing social problem. Workers becoming disabled in the work place who are no longer productive, or who are marginally productive, create a financial drain upon society.

In 1884 Germany adopted the first modern compensation system based upon a mixed concept of contributions by both employer and employee toward a form of industrial insurance. Knowledge of the concept and mechanics of this system found its way to the United States where the coincidence of increasing industrial injuries and decreasing remedies found advocates for some solution to the problem of industrial accidents. Various state commissions investigated this situation, and in 1910 a conference in Chicago was attended by representatives of these state commissions which drafted a uniform worker's compensation law. This original draft furnished the basic pattern for legislation which followed in the states. With earlier laws in Montana, New York and Kentucky being declared unconstitutional, Wisconsin adopted the first worker's compensation law in 1911.³ By 1920 all but eight states had adopted compensation laws, and Mississippi became the last state to adopt such a law in 1948.⁴

Constitutional considerations dictated a departure from the German model of both employer and employee contribution. The general scheme adopted by the worker's compensation acts was to require total funding by the employer, but to make participation "optional". However, if the employer chose not to participate he was precluded from using the common-law defenses previously outlined. A few other states limited their coverage to "hazardous" employments. Over the years employer participation has increased and it is now estimated that approximately eighty percent of the total labor force is covered by the worker's compensation acts. The primary occupational groups not yet covered by the compensation acts are domestic and agricultural workers, which are excluded from most acts, including South Dakota's. Other exclusions include those employed by small firms (some states exempt employers with fewer than a stated minimum number of employees) and casual workers.

Congress created the National Commission on State Workman's Compensation Laws in the Occupational Health and Safety Act of 1970. This Commission issued a report in July of 1972 recommending certain minimum standards for worker's compensation acts.⁵ This report has generally been considered the standard against which the adequacy of state worker's compensation acts is measured. In most respects, the South Dakota Act conforms to the minimum recommendations of this report.

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Operation of the System

Similar to the worker's compensation acts in other states, the South Dakota Act has the following essential features.

1. The fundamental concept is that an employee is entitled to benefits enumerated in the Act whenever he or she suffers an "injury arising out of and in the course of employment", which is not "a disease in any form except as it shall result from the injury".
2. Generally speaking, negligence and fault are for the most part immaterial. The employee's contributory negligence does not lessen his right to recovery, and the employer's complete freedom from fault does not lessen his liability. However, an employee may not recover for any injury or death because of his willful misconduct, intoxication, refusal to use a safety appliance furnished by the employer, or failure to perform a duty required by statute.
3. Coverage is limited to those who have status as an employee, as distinguished from an independent contractor, for example.
4. Benefits to the employee include compensation equal to two-thirds of the employee's average weekly wage up to 100% of the state's average weekly wage, all "necessary" medical expenses, and compensation during a period of rehabilitation. The duration of the employee's compensation depends upon the length of the period of temporary total disability and upon the extent of permanent partial disability, if any. Permanent total disability entitles an employee to compensation for life. In death cases compensation is paid for life or until remarriage to a spouse, for life to a child physically or mentally incapable of supporting himself, until age eighteen for an able-bodied child, and until age twenty-two for a child enrolled as a full-time student in an accredited educational institution. Other dependents are provided for in varying degrees in the statute.
5. In return for the benefits secured by the Act without regard to fault, the employee and his dependents give up their common-law right to sue the employer for personal injury damages for an injury covered by the Act.
6. The employee maintains the right to sue third parties whose negligence caused his work-related injury, but the Act requires that any proceeds of such a suit must first reimburse the employer or his insurer for the costs of all benefits received under the Act.
7. The Act is administered by the Division of Labor and Management, South Dakota Department of Labor. Contested cases are heard administratively and not in the courts, although an appeal may be had from administrative decisions to the courts. Generally speaking, formal rules of procedure and evidence are somewhat relaxed to facilitate the remedial nature of the legislation. Our Supreme Court has stated that the Worker's Compensation Act will be liberally construed to effectuate its purpose.⁶
8. The employer is required to secure his responsibility under the Act by the purchase of worker's compensation insurance, or by self-insurance under minimum financial requirements set forth in the law. The State of South Dakota and other governmental entities self-

insure their obligation to their employees under the Worker's Compensation Act. A few of the larger corporations in the state are also self-insurers. Predominantly, however, most worker's compensation coverages are provided by insurance carriers. An employer failing to comply with the Act faces a potentially severe penalty. In such a case the employee has the option of suing the employer for personal injuries in a negligence action for proceeding under the Act in circuit court and collecting double compensation plus the cost of all necessary medical care.

After a work-related injury, an employee is entitled to have his necessary medical expenses paid, regardless of the duration of the injury. However, compensation⁷ will not be paid unless the employee has been incapacitated for a period of at least seven consecutive days. After the waiting period, however, compensation is computed from the date of the injury.

There are essentially four circumstances under which compensation is paid. Compensation for temporary total disability is paid during the period of time that the employee is unable to return to work, until such time as his physician concludes that the injury has reached the point of recovery whereby the employee may return to work. A subsidiary circumstance during which partial compensation might be paid refers to a period of temporary partial disability, where the employee is cleared for part-time or restricted activity work with the employer.

A second form of compensation is for permanent partial disability. Conceptually, this form of compensation relates to the permanent loss of a job-related medical or anatomical function, as distinguished from wage replacement in the case of temporary total or temporary partial disability. There are "scheduled" or "nonscheduled" injuries for which compensation for permanent partial disability is paid. A statutory schedule⁸ arbitrarily awards compensation for the loss of certain anatomical functions. For example, the loss of a thumb entitles an employee to fifty weeks of compensation. For permanent disfigurement, or for permanent disability resulting from injury to any part of the body not mentioned in the schedule, compensation is paid for that portion of 312 weeks which is represented by the percentage that such permanent partial disability or permanent disfigurement bears to the body as a whole. Where an employee is released from temporary total disability and is partially incapacitated from pursuing his usual and customary line of employment or has not been given a "schedule" rating, he is entitled to receive compensation based upon one-half the difference between that which he previously earned and his post-accident earnings.

Thirdly, compensation is paid for life for permanent total disability as defined by the statute. In addition to those injuries which one would ordinarily conclude to be permanently disabling, another concept of permanent total disability, called the "odd-lot doctrine",

has recently developed. The odd-lot doctrine is defined by our Supreme Court as follows:

[A] person is totally disabled if his physical condition, in combination with his age, training, and experience, and the type of work available in his community, causes him to be unable to secure anything more than sporadic employment resulting in an insubstantial income.⁹

Thus permanent total disability is established either on the basis of medical or anatomical impairment or on a combination of physiologic and socioeconomic factors.

Fourthly, the employer is required to pay compensation during a period of rehabilitation necessary to return the employee to his or her usual and customary line of employment. The cost of those rehabilitation services which are medical in nature must be borne by the employer. While employers are not technically required to bear the cost of nonmedical rehabilitation services, many will pay all or a part of those costs, since the alternative to rehabilitation can be permanent total disability.

Employers are required to keep a record of all employee injuries, and to preserve that record for at least four years. Any injury requiring medical treatment other than minor first aid or which incapacitates an employee for at least seven calendar days must be reported to the Department of Labor, where the employer is self-insured, or to the insurer with which the employer is insured. The insurer in turn must report the injury to the Department. Within thirty days of a reported injury, the employer or insurer must investigate the claim and notify the employee and the Department whether coverage will be denied in whole or in part. In the case of a denial, the employee has two years within which to file a petition for hearing with the Department. The employee likewise has an obligation to notify the employer of any job-related injury within thirty days of the occurrence of the injury, unless the employer has actual knowledge of the injury.

The vast majority of claims are processed and paid without dispute. However, when disputes arise an adjudicative process is triggered by a denial of some or all of the coverage by the employer, or the employer's insurer, and by the filing of a petition for hearing by one of the parties. Generally speaking, most disputes involve one or both of two questions; did the injury arise out of and in the course of employment, and is the employee permanently and totally disabled, as distinguished from some lesser form of disability? Another fertile area of dispute can be the extent of disability, short of permanent and total disability.

Choice of Physician

As mentioned at the outset, Senate Bill 194¹⁰ changed the choice of physician provisions of the worker's compensation law. This legislation will be-

come effective on July 1, 1990. Under existing law the employer is entitled to choose the physician to treat work-related injuries. This has historically been justified on the basis that the employer had the sole responsibility for providing all necessary medical services and was entitled to have some control over the delivery of those services. For example, this provision gave the employer some control over "doctor hopping". In practical effect, even prior to the passage of Senate Bill 194, most employees went to their own physician and the employer accepted that physician as the employer designated physician. Only a few larger corporations, such as John Morrell and Company and Homestake Mining Company, had company designated clinics or physicians.

Organized labor became unhappy with this situation, which was principally directed toward John Morrell and Company. Union advocates of Senate Bill 194 complained that "company doctors" were returning workers to their employment too early, and that workers were not receiving as high a quality of care as they would receive from their physicians. While the opponents of the bill disputed this, the unions obtained sufficient signatures to put the "choice of doctor" issue on the ballot. Fearing an expensive ballot fight of a technical issue not easily explained to the general public, business and industry interests negotiated some amendments to the bill with its proponents and acceded to its passage. One concern of business and industry with employee choice of physician remains its cost. Approximately nineteen other states currently have some form of employee choice of physician. A study of certain of those states by the National Council on Compensation Insurance indicates that states with employer choice of physician have medical costs that are 14.2 percent lower than states with employee choice.¹¹ On the other hand, the proponents of the bill advocate that it is only fair for a worker to be able to be treated by his own physician.

Under Senate Bill 194 a worker "may elect to secure his own physician, surgeon, or hospital services at the employer's expense". However, the employer is not responsible for employee travel expenses if a health care provider is available in the employee's local community and the employee chooses a provider in another community. The employee is required to notify the employer of his choice of a medical practitioner. The medical practitioner may arrange for any consultation, referral or other specialized medical services as required by the nature of the injury.

The treating physician is required to furnish a report of the injury and treatment to the employer and the Department of Labor within fourteen days following the first treatment. Where the physician continues to see the employee, status reports are required at thirty-day intervals, except where the physician has not seen the employee since his last report. Practitioners are re-

quired to furnish all relevant medical information pertaining to the treatment of the employee upon request to the employer, the employee, the insurer and the Department of Labor. Any medical practitioner willfully failing to make any report to the Department may forfeit his right to receive payment for services rendered.

If a worker unreasonably refuses or neglects to avail himself of medical or surgical treatment necessary for his or her physical rehabilitation, the employer is not liable for compensation for an aggravation of an injury due to such refusal and neglect. However, the law does not address the situation where an employee pursues a nonproductive course of treatment with a practitioner who may not be qualified to treat the employee's condition. The employer does have a right to require medical examinations by a physician selected by the employer to determine the nature, extent and probable duration of the injury. However, no mechanism presently exists for changing practitioners at the request of the employer. This may require an amendment of the law in the future. For example, a course of treatment pursued by a chiropractor or a podiatrist may not, as a medical matter, produce a recovery from the injury. In such instances, it is argued that the employer should be entitled to provide a course of treatment designed to produce recovery to its greatest extent.

Treatment and Evaluation of Injuries

Needless to say, a physician has both a moral and ethical responsibility to treat his patient, whether that patient comes to him by way of worker's compensation, or otherwise. It is undoubtedly true that the best course of medical treatment for a work-related injury is that which is designed to restore the worker, as nearly as possible, to his original state of health prior to the injury. However, in addition to the treatment and cure of the medical condition created by a work-related injury, a physician in the worker's compensation environment many times has additional responsibility. This responsibility is to offer expert advice concerning the extent of any disability suffered by the worker as a result of the job-related injury.

A physician treating an injured worker should routinely consider the propriety of returning the worker to his employment, once this becomes medically permissible. Consideration should also be given to return to work on a part-time or restricted duty basis. Not only does this in most instances facilitate the rehabilitation of the employee, but it also is consistent with the remedial nature of the Act to correlate treatment of injuries with the worker's relationship to his job and his work place.

At some point in time, the employee will reach a point at which his physical condition will have improved to its maximum extent. If an anatomical disability remains, the physician must provide an evaluation of

the extent of disability. The worker's compensation statute contemplates essentially two types of evaluation: a percentage of disability of the anatomical function of the "scheduled" body part involved, or an evaluation of the disability as a percentage of the body as a whole. Injuries to the back and injuries to any other part of the body not specifically listed on the schedule require a percentage of disability as it bears to the body as a whole. All other evaluations are represented by the percentage that such permanent partial disability bears to the particular body part as a whole. For example, if a worker injures both an arm and a leg, two separate evaluations are involved. A percentage of disability must be determined based upon an evaluation of the partial loss of use of the arm as compared to a complete loss of use. A similar separate evaluation would likewise be made with reference to the leg. Each are then compensated based upon the formula set forth in the statute.

If in the previously stated example the worker had also injured his back, three evaluations would be made. The evaluation with respect to the arm and the evaluation with respect to the leg would be separately made as stated. The evaluation of the back would relate only to the disability of the back as it relates to the body as a whole, without regard for the injury to the arm or the injury to the leg, which were separately evaluated.

The South Dakota Supreme Court has recently clarified the appropriate standard to be followed in determining permanent partial impairment ratings. Fundamentally, the Court held that a medical impairment rating is not always the same as the true measure of the loss of use of a body part. The Department of Labor must consider other evidence bearing upon the actual impairment caused by the injury, which may extend beyond the actual anatomical impairment. The court stated:

[The claimant] claims the Department of Labor hearing examiner erred when she let stand the permanent, partial impairment rating of a doctor as the sole measure of [the claimant's] loss of use of her arm or whole person. SDCL S62-4-6 specifies the amount of compensation an employee shall receive for the loss of a part of the body or its loss of use. The clear language of this statute directs that compensation shall be paid for loss of use. Consequently, the hearing examiner must determine if, and to what extent, a claimant has suffered the loss of use of a part of the body. This determination requires more than a mere adoption of a medical evaluation of anatomical impairment.

The point made by the Court is that a mere anatomical impairment of a body part may not properly describe the loss of use of that body part suffered by a claimant with respect to his particular mode of employment. Thus while anatomical impairment is an important component of determining a physical disability rating for worker's compensation purposes,

broader consideration must also be given by the Department to the use of that anatomical part in the employment pursued by the worker. A fifty percent anatomical disability to the left hand of a concert pianist will likely, in practical effect, result in a one hundred percent loss of use for employment purposes. On the other hand, a similar anatomical disability for a retail sales clerk would likely be directly comparable to the actual loss of use. The physician's role continues to be paramount in determining anatomical or medical rate of disability, while the evaluation of total loss of use comes from the consideration of several factors, including the physician's opinion.¹²

The advent of the "odd-lot doctrine" has resulted in an increased number of claims for permanent total disability. Sometimes physicians are asked for opinions which are really outside their area of expertise in potential total permanent disability cases. A distinction must be drawn between the evaluation of anatomical or medical disability and the evaluation of employability. As discussed above, the odd-lot doctrine combines an evaluation of the worker's physical condition with his age, training, experience and the type of work available in the community. Ordinarily, a conclusion of total permanent disability under the odd-lot doctrine requires a study of the job market in the employee's community, his educational level, and his physical and mental ability to assimilate training for new or advanced job skills. While physicians are uniquely qualified to evaluate medical or anatomical disability, the information necessary to determine permanent total disability under the odd-lot doctrine based upon these socioeconomic factors is ordinarily not a subject within the readily available knowledge of most physicians. If a physician does not feel qualified to make these determinations beyond the more limited scope of medical disability, he is of course free to decline to render such an opinion. Vocational evaluations are available from the State Division of Vocational Rehabilitation and from consultants in private practice.

To put the system in its proper perspective, remember that a worker's compensation proceeding is not a personal injury action. While permanent pain is a consideration in the determination of anatomical disability or loss of the use of a body part, there is no separate compensation for pain and suffering as such. Beyond the compensation formula for permanent partial or permanent total disability, no damages are awarded for disability or loss of earning capacity. No separate compensation is awarded for the aggravation of a pre-existing ailment or condition except as it may relate to the determination of compensable disability. These are components of any injury, but the worker is entitled to all necessary medical benefits and compensation for job related disability which he is certain to receive, in return for giving up these negligence related measures of damage and a far less certain prospect of recovery.

One final point must be emphasized in discussing the role of the physician in the worker's compensation system. As was mentioned at the outset of this section, the paramount responsibility of the physician is to treat and cure, as best one can, his patient, who by the mere circumstance of the time and the location of his injury is within the worker's compensation system. **However, physicians must realize that the worker's compensation system has many other components, many of which depend upon the medical treatment and evaluation of the worker, to bring a worker's compensation proceeding to its final resolution.** This interdependence makes it essential that the physician promptly and fairly render medical reports and medical evaluations as needed by the system, and as permitted by the medical progress of the patient. Without such prompt and direct involvement by physicians, including testimony where necessary in disputed proceedings, the system cannot function efficiently to accomplish its principal goal: fair compensation of the worker, accompanied by the worker's return to employment, as promptly as possible.

Occupational Disease Disability

While this article has dealt with the worker's compensation system involving compensation for injuries arising out of and in the course of employment, for completeness, mention should be made of another component of the worker's compensation system: occupational disease disability. In 1947 South Dakota adopted a compensation system for occupational diseases, which are diseases peculiar to the occupation in which the employee is engaged due to causes beyond the ordinary hazards of employment. If they meet the requirements of exposure and occupational disease, as distinguished from a disease which is not shown to be occupationally related, workers are entitled to compensation at the same rate as provided under the Worker's Compensation Act.

Conclusion

As we have seen, the worker's compensation system was created to meet a social need. For the most part, the system addresses this need efficiently and fairly. It was never intended to be a windfall, but for the most part it works well to provide for lost income and disability associated with work place injuries without an insurmountable burden upon the employee to obtain compensation. There are numerous complexities to the system which have not been addressed in this article because of the constraints of space. Hopefully, however, this overview has provided heightened knowledge of the purpose, scope and function of South Dakota's Worker's Compensation Act to the physicians of this state.

FOOTNOTES

1. For ease of reference and consistent with the drafting

philosophy of the South Dakota Code, the masculine gender only is used, and is intended to include the feminine and neuter genders. SDCL S2-14-5. Additionally, references to the "employer" are intended to include the employer's insurer, unless the context clearly indicates otherwise.

2. Principally derived from Larson, *Worker's Compensation Law*, considered by most legal practitioners to be the principal treatise on worker's compensation law. Other information in this section is derived from *Survey of Worker's Compensation Laws*, January, 1987, published by the Alliance of American Insurers.

3. The United States Supreme Court ultimately upheld the worker's compensation framework against due process objections under the Fourteenth Amendment in *New York Central R. Co. vs. White*, 243 US 188, 37 S.Ct. 247, 61, L.Ed. 667 (1917). The quid pro quo of a certain recovery for the employee balanced against the insulation of the employer from a personal injury suit was approved as being within the police powers of the state.

4. Referring to the original forty-eight states. Hawaii, which became a state in 1959, was the last state to adopt a worker's compensation law in 1963.

5. The principal standards recommended by the Commission were: compulsory coverage in all Acts; elimination of all numerical and occupational exemptions to coverage, including domestic and farm labor; full coverage of work-related diseases; full medical and physical rehabilitation services without arbitrary limits; broad extraterritoriality provision; elimination of arbitrary limits on duration or total sum of benefits; and a weekly benefit maximum that rises from an immediate 66-2/3% to an ultimate 200% of average weekly wage in the state. Larson, *Worker's Compensation Law*, S530.

6. *Meyer vs. Roettele*, 64 SD 36, 264 NW 191, 193 (1935).

7. Compensation is computed to be equal to 66-2/3% of the employee's weekly earnings, but not more than 100%, and not less than 50%, of the state average weekly wage. If an employee earned less than 50% of the maximum allowable per week, the amount of compensation is the average weekly wage earned by the employee. SDCL S62-4-3.

8. The statutory schedule set for in SDCL S62-4-6 is as follows:

- (1) For the loss of a thumb, or the permanent and complete loss of its use, fifty weeks of compensation;
- (2) For the loss of a first finger, commonly called the index finger, or the permanent and complete loss of its use, thirty-five weeks of compensation;
- (3) For the loss of a second finger, or the permanent and complete loss of its use, thirty weeks of compensation;
- (4) For the loss of a third finger, or the permanent and complete loss of its use, twenty weeks of compensation;
- (5) For the loss of a fourth finger, commonly called the little finger, or the permanent and complete loss of its use, fifteen weeks of compensation;
- (6) The loss of the first phalange of the thumb, or of any finger, shall be considered to be equal to the loss of one-half of such thumb or finger and compensation shall be one-half of the amounts specified; compensation for the loss of less than the first phalange of a thumb or finger shall be in such proportion as the partial loss bears to the loss of the first phalange;
- (7) The loss of more than one phalange, or fraction thereof, shall be considered as the loss of the entire finger or thumb, but in no case shall the amount received

for more than one finger exceed the amount provided in this schedule for the loss of a hand;

- (8) For the loss of a great toe, thirty weeks of compensation;
- (9) For the loss of one or more of the toes other than the great toe, ten weeks, and for the additional loss of one or more toes other than the great toe, an additional ten weeks of compensation;
- (10) The loss of the first phalange of any toe shall be considered to be equal to the loss of one-half of such toe, and compensation shall be one-half the amount above specified; compensation for the loss of less than the first phalange of a toe shall be in such proportion as the partial loss bears to the loss of the first phalange;
- (11) The loss of more than one phalange, or fraction thereof, shall be considered as the loss of the entire toe;
- (12) For the loss of a hand, or the permanent and complete loss of its use, one hundred fifty weeks of compensation;
- (13) For the loss of an arm, or the permanent and complete loss of its use, two hundred weeks of compensation;
- (14) Amputation of the arm below the elbow shall be considered the loss of a hand, if enough of the forearm remains to permit the use of an effective artificial member; otherwise it shall be considered as the loss of an arm;
- (15) For the loss of a foot, or the permanent and complete loss of its use, one hundred twenty-five weeks of compensation;
- (16) For the loss of a leg, or the permanent and complete loss of its use, one hundred sixty weeks of compensation;
- (17) Amputation of the leg below the knee shall be considered as the loss of a foot, if enough of the lower leg remains to permit the use of an effective artificial member; otherwise it shall be considered as the loss of a leg;
- (18) For the loss of the sight of any eye, one hundred fifty weeks of compensation;
- (19) For the permanent and complete loss of hearing in one ear, fifty weeks of compensation;
- (20) For the permanent and complete loss of hearing in both ears, one hundred fifty weeks of compensation;
- (21) For permanent partial disability resulting from injury to the back, compensation for that proportion of three hundred and twelve weeks which is represented by the percentage that such permanent partial disability bears to the body as a whole;
- (22) In all cases in the above schedule under this section, where the loss of use is partial and permanent, the compensation shall bear such relation to the maximum amount for complete and permanent loss of use as defined in this section as the partial loss of use bears to the complete loss of use;
- (23) The loss of both hands or both arms, or both feet, or both legs, or both eyes or of any two thereof, or complete and permanent paralysis, or total and permanent loss of mental faculties, or any other injury which totally incapacitates the employee from working at any occupation which brings him an income, shall constitute total disability, to be compensated according to the compensation fixed by S62-4-7. These specific cases of total and permanent disability shall not be construed as excluding other cases of total or permanent disability;

(24) For permanent disfigurement, or permanent disability resulting from injury to any part of the body not hereinbefore listed, compensation for that portion of three hundred twelve weeks which is represented by the percentage that such permanent partial disability or permanent disfigurement bears to the body as a whole.

9. *Barkdull vs. Homestake Mining Co.*, 317 NW2d 417, 418 (SD 1982), citing *Schulte vs. C. H. Petersen Construction Co.*, 278 Minn. 79, 153 NW2d 130,133-34 (1967).

10. The full text of Senate Bill 194 is as follows:

Section 1. That S62-4-1 be amended to read as follows:

62-4-1. The employer shall provide necessary first aid, medical, surgical, and hospital services, or other suitable and proper care including medical and surgical supplies, apparatus, artificial members and body aids during the disability or treatment of an employee within the provisions of this title. Repair or replacement of damaged prosthetic devices is compensable and is considered a medical service under this section if the devices were damaged or destroyed in a work related accident. Repair or replacement of damaged hearing aids, dentures, prescription eyeglasses, eyeglass frames or contact lenses is considered a medical service under this section if the hearing aids, dentures, prescription eyeglasses, eyeglass frames or contact lenses were damaged or destroyed in an accident which also causes another injury which is compensable under this law. The employee may elect to secure his own physician, surgeon, or hospital services at the employer's expense. If the employee selects a health care provider located in a community not the home or workplace of the employee, and a health care provider is available to provide the services needed by the employee in the local community or in a closer community, no travel expenses need be paid by the employer or the employer's insurer.

Section 2. That S62-7-4 be repealed.

Section 3. That chapter 62-4 be amended be [sic] adding thereto a new section to read as follows:

The employee may make the initial selection of his medical practitioner or surgeon from among all licensed medical practitioners or surgeons in the state. The employee shall, prior to treatment, notify the employer of his choice of medical practitioner or surgeon or as soon as reasonably possible after treatment has been provided. The medical practitioner or surgeon selected may arrange for any consultation, referral or extraordinary or other specialized medical services as the nature of the injury shall require. The employer is not responsible for medical services furnished or ordered by any medical practitioner or surgeon or other person selected by the employee in disregard of this section. If the employee is unable to make such selection, the selection requirements of this section shall not apply as long as the inability to make a selection persists. If the injured employee unreasonably refuses or neglects to avail himself of medical or surgical treatment, the employer is not liable for an aggravation of such injury due to such refusal and neglect and the department of labor may suspend, reduce or limit the compensation otherwise payable. If the employee desires to change his choice of medical practitioner or surgeon, the employee shall obtain approval in writing from the employer. An employee may seek a second opinion without the employer's approval at the employee's expense.

Section 4. That chapter 62-4 be amended be [sic] adding thereto a new section to read as follows:

A medical practitioner or surgeon first treating an employee shall furnish a report of the injury and treatment to the employer and the department of labor within fourteen days following the first treatment. The department of labor may excuse the failure to furnish the report within fourteen days if it finds it to be in the interest of justice to do so. Thereafter, if the employee needs continued medical care or claims to be disabled from his employment, the medical practitioner or surgeon shall provide status reports to the employer and the department of labor at no less than thirty-day intervals, provided that no report shall be required if the medical practitioner or surgeon has not seen the employee since his last report.

Section 5. That chapter 62-4 be amended be [sic] adding thereto a new section to read as follows:

All medical practitioners or surgeons attending injured employees shall comply with the rules promulgated by the department of labor and shall make such reports as may be required by it. All medical and hospital information relevant to the particular injury shall, on demand, be made available to the employer, employee, insurer and the department of labor. No relevant information developed in connection with treatment or examination for which compensation is sought may be considered a privileged communication for purposes of a worker's compensation claim. When a medical practitioner or surgeon willfully fails to make any report required of him under this section, the department of labor may order the forfeiture of his right to all or part of payment due for services rendered in connection with the particular case.

Section 6. That chapter 62-1 be amended by adding thereto a new section to read as follows:

For purposes of this title only, a health care provider licensed and practicing within the scope of his profession under Title 36 is a medical practitioner.

11. NCCI Digest, December 1989, pp. 45-47.

12. *Cozine vs. Midwest Coast Transport, Inc.*, opinion nos: 16726 and 16737, South Dakota Supreme Court, opinion filed April 18, 1990. #

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August

Anesthesiology Board Review Seminar, Hilton Head Island, SC, Aug 12-17. 60 hrs AMA Category I credit. Contact: Sally O'Neill, Ph.D, Creighton U CME Div, 2500 California St, Omaha, NE 68178. Phone: toll free 800-548-CMED.

Gynecologic Surgical Forum, Scanticon Minneapolis Conf. Ctr, Plymouth, MN, Aug 16-17. Fee: \$500. 9.5 hrs AMA Category I credit. Contact: Hennepin County Med Ctr, Off of Academic Affairs, 701 Park Ave, Suite 4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

Prescribing Controlled Substances Workshop, Rosary Hall, St Vincent Charity Hosp, Cleveland, OH, Aug 16-18. Fee: \$350. 22 hrs AMA Category I credit. Contact: Chris Adelman, MD, PCS Workshop, Rosary Hall, St Vincent Charity Hospital, 2351 E 22nd St, Cleveland, OH 44115. Phone: (216) 363-2580.

Laparoscopic Cholecystectomy for Surgeons, Radisson Redick, Omaha, NE, Aug 20-21. 15 hrs AMA Category I credit. Contact: Sally O'Neill, Ph.D, Creighton U CME Div, 2500 California St, Omaha, NE 68178. Phone: toll free 800-548-CMED.

September

3rd Annual Digestive Diseases Symposium, UNL Student Union, Lincoln, NE, Sept 8. AMA Category I credit avail. Contact: Sally O'Neill, Ph.D, Creighton U CME Div, 2500 California St, Omaha, NE 68178. Phone toll free 800-548-CMED.

15th Annual South Dakota Perinatal Association Conference, Perinatal Care: Working Toward a Common Goal, Ramkota Inn, Sioux Falls, SD, Sept 13-14. CME credit avail. Contact: Debbie Meyer, SDPA, 1100 S Euclid, Sioux Falls, SD 57105. Phone: (605) 333-7155.

Advances in the Management of Gynecologic Cancer, Kiewit Conf Ctr, Omaha, NE, Sept 14. AMA Category I credit avail. Contact: Sally O'Neill, Ph.D, Creighton U CME Div, 2500 California St, Omaha, NE 68178. Phone: toll free 800-548-CMED.

Pediatric Epilepsy Update: A Primary Care Physician's Perspective, Omni Northstar Hotel, Minneapolis, MN, Sept 14-15. Fee: \$120. 10 hrs AAFP & AMA Category I credit. Contact: Catherine Glunz, Gillette Children's Hosp, 200 E University Ave, St Paul, MN 55101. Phone: (612) 229-3870.

Reproductive Medicine, Holiday Inn East, St Paul, MN, Sept 14-15. Fee: \$175. 10 hrs AMA Category I credit. Contact: Registrar, CME, St Paul-Ramsey Medical Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Managed Care Law: New Risks, New Solutions, The Westin at Canal Place, New Orleans, LA, Sept 16-18. Fee: \$680. Contact: Conference Office, Group Health Assoc. of America, 1129 Twentieth St, NW, Ste #600, Washington, DC 20036. Phone: (202) 778-3228.

October

Emergency Medicine Review, U of Neb Medical Ctr, Omaha, NE, Oct 1-6. CME credit avail. Contact: Marge Adey, Ctr for CME, U of Neb Med Ctr, 600 S 42nd St, Omaha, NE 68198-6100. Phone: toll free 800-228-9630.

Advanced Trauma Life Support (ATLS), U of Neb Medical Ctr, Omaha, NE, Oct 8-9. CME credit avail. Contact: Cindy Hanssen, Ctr for CME, U of Neb Med Ctr, 600 S 42nd St, Omaha, NE 68198-6100. Phone: toll free 800-228-9630

Pediatric Advanced Life Support (PALS), U of Neb Medical Ctr, Omaha, NE, Oct 10-11. CME credit avail. Contact: Cindy Hanssen, Ctr for CME, U of Neb Med Ctr, 600 S 42nd St, Omaha, NE 68198-6100. Phone: toll free 800-228-9630.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

AMERICAN MEDICAL TELEVISION on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time. This program shows the latest clinical advances, legislative and socioeconomic news and offers CME credit. For more information call 1-800-6000.

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South Dakota Foundation for Medical Care

South Dakota Foundation for Medical Care

President's Message

Rodney R. Parry, MD

May, 1989 - June, 1990

With the strong conviction that the physicians of South Dakota best understand the health needs of the elderly of South Dakota, the South Dakota Foundation for Medical Care has completed another year of peer review as mandated by the Health Care Financing Administration (HCFA). Despite a heavy load of 7,017 Title 18 claims reviewed out of a potential of 39,934 cases, our 200 South Dakota physician reviewers, the Quality Assurance Subcommittee, and the Foundation Board members strove to ascertain that appropriate quality care was provided to our patients. Opportunities for documentation and/or explanation through correspondence or personal interaction were available to all physicians where cases required further review. Not surprising to those who have the fortune to work closely with the physicians of South Dakota and recognize the level of commitment, pride, and superb educational backgrounds, only 1.9% of the total Title 18 claims reviewed were denied. Fortunately, since April 1, 1989, only 180 Level I, 21 Level II, and 1 Level III notifications for confirmed quality of care problems were necessitated.*

Each of us will make decisions which in retrospect may not have been sound. Through careful documentation of patient status, the inclusion of the rationale of decision making in the medical record and reliance upon the wisdom of medicine, rather than yielding to outside pressures, nearly all care questions will be avoided. Both the reviewer and the physician of the reviewed cases recognize that all benefit by maintaining professional respect through all aspects of medical care. The public image of physicians is also enhanced through the public knowledge of the peer review process.

Nationally, the current PRO system has been criticized for focusing too much on utilization and relying too heavily on external regulations and process of care. The American Medical Association agrees that reviews should focus on quality, rely more on education, and be less adversarial or punitive. There appears to be dialogue at the present time regarding the appropriateness of state-wide peer review, rather than sub-state or even multi-state organizations.

This common sense approach to peer review is exactly the stand that the South Dakota Foundation for Medical Care has achieved. The attitude that the patients, the public, and physician colleagues benefit by continuing medical education through case analysis will indeed be beneficial.

-
- * Level I - Confirmed quality problem without the potential for significant adverse effects on the patient.
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 - Level III - Confirmed quality problem with significant adverse effects on the patient.

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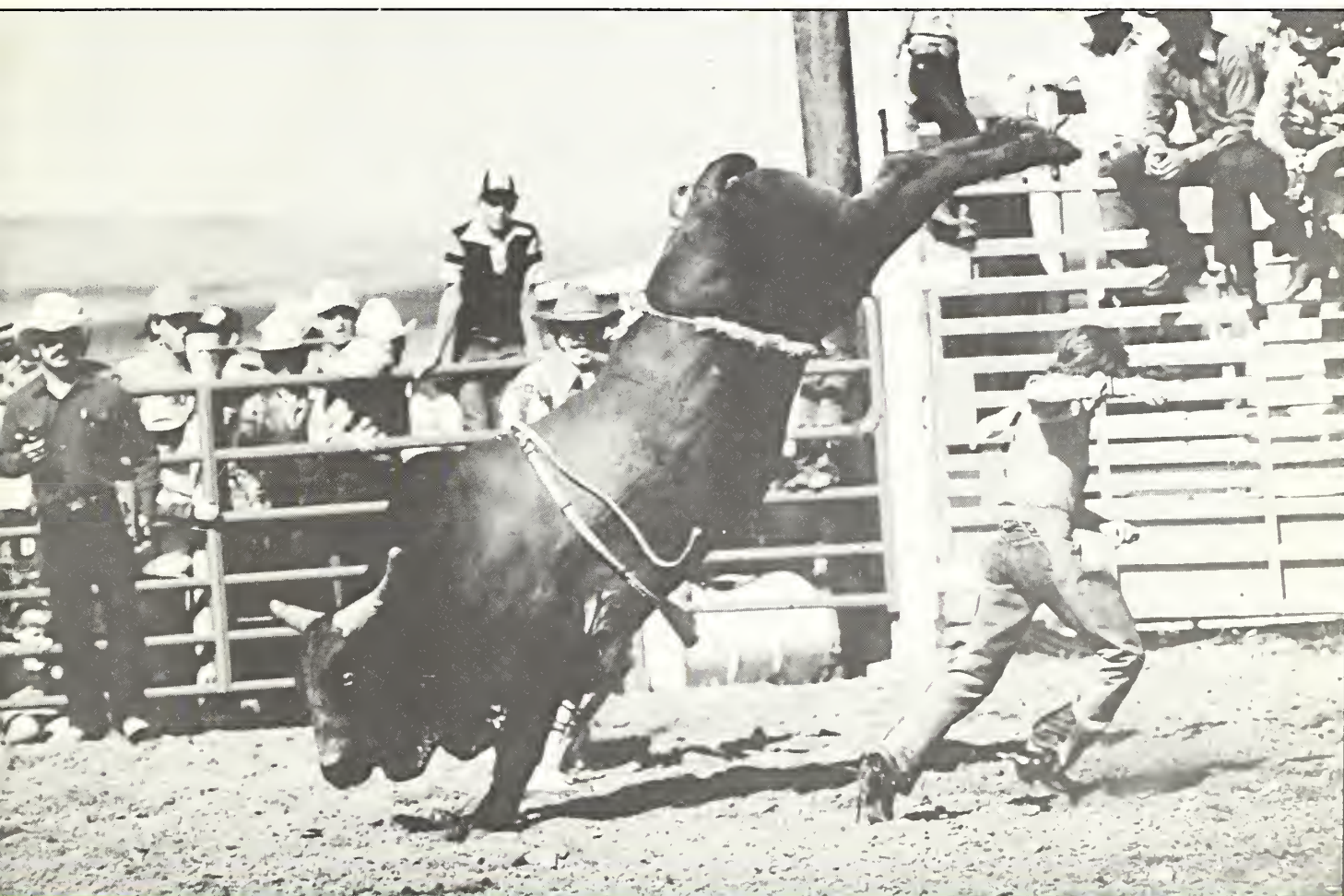
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Transactions of the South Dakota State Medical
Association 109th Annual Meeting, May 31, June 1, 2, 1990



South Dakota Foundation for Medical Care

Potential Quality Concerns Related to Multiple Physician Care Management

SDFMC has been monitoring the quality of care provided in South Dakota through the physician peer review process. SDFMC's Quality Assurance Committee meets monthly to conduct the business of reviewing individual cases where questions have been raised regarding the care provided by hospitals and physicians. Many problems are found to be due to a lack of necessary and pertinent medical record documentation. Far, far fewer cases reviewed by the Quality Assurance Committee find that actual medical mismanagement occurs.

Results of quality review since April 1, 1989, do indicate a trend where confirmed quality problems have resulted from a failure to interface patient care plans when there is multiple physician management of the patient's problems. Lack of a clear delineation of responsibility for patient's preop care contributes to the problem. Lack of medical record documentation, including sign off of patient's care by all physicians, can result in medical mismanagement problems.

SDFMC recommends that physicians coordinate patient care plans among admitting, attending, consulting and procedure physicians. The effectiveness of a quality assurance program is measured by the ability to identify and correct quality of care problems before patients are harmed and/or to prevent any possible reoccurrences.

Improvement in interfacing patient care plans where there is multiple physician management can reduce the quality issues that place patients at risk.

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References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20: 710-713.
3. *Data on file*, Lilly Research Laboratories
4. *Scand J Gastroenterol* 1987;22(suppl 136): 61-70.
5. *Am J Gastroenterol* 1989;84: 769-774.



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2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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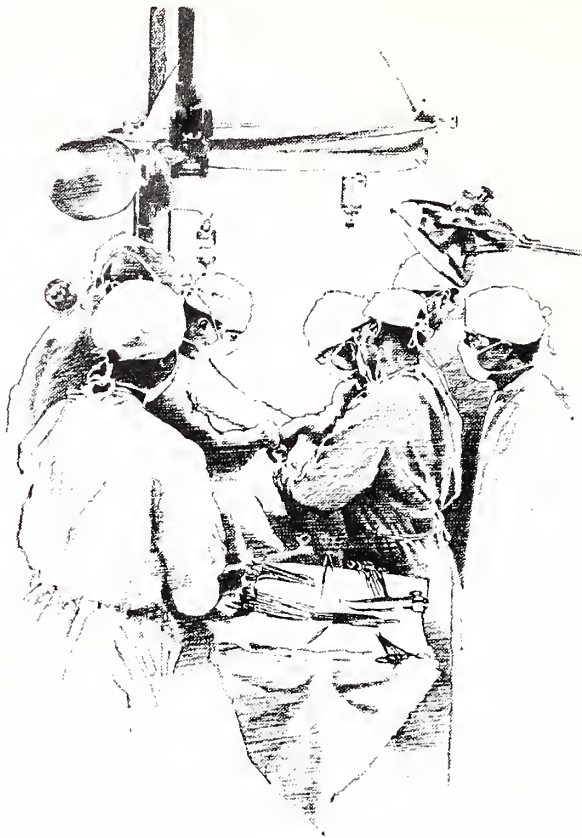
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James Reynolds, MD (1991) Sioux Falls
Howard Saylor, Jr, MD (1991) Huron
Robert Suurmeyer, MD (1991) Aberdeen
Robert Westaby, MD (1991) Rapid City
John Healy (1991) Clinic Manager
Ed Arshem (1991) Clinic Manager
Robert Chleborad (1991) Clinic Manager

AIDS TASK FORCE

Durward Lang, MD (1991) Sioux Falls, Chairman
Bruce Lushbough, MD (1991) Brookings
Donald Humphreys, MD (1991) Sioux Falls
Jerome Freeman, MD (1991) Sioux Falls
Thomas Huber, MD (1991) Pierre
Alfred Hartmann, MD (1991) Sioux Falls
Michael McVay, MD (1991) Yankton
Wendell Hoffman, MD (1991) Sioux Falls

SPECIAL MEDICARE COMMITTEE

James Reynolds, MD (1991) Sioux Falls, Chairman
John Barker, MD (1991) Sioux Falls
Robert L. Ferrell, MD (1991) Rapid City
Kathy Haberling, (1991) Clinic Manager
Ed Arshem, (1991) Clinic Manager
Karen Shea, (1991) Clinic Administration

CONTINUING MEDICAL EDUCATION COMMITTEE

Robert Raszkowski, MD (1992) Sioux Falls, Chairman
James Gaede, MD (1992) Mitchell
Richard Holm, MD (1992) Brookings
Willis F. Stanage, MD (1992) Yankton
Michael Davies, MD (1991) Fort Meade
James Larson, MD (1991) Watertown
Thomas Luzier, MD (1991) Aberdeen
**H. Bruce Vogt, MD (1991) Director of Medical
 Education, McKennan Hosp.**
**Jerome Freeman, MD (1991) Director of Medical
 Education Sioux Valley Hosp.**
**James Engelbrecht, MD (1991) Director of Medical
 Education, Rapid City Regional Hosp.**

REPORT OF THE BUDGET AND AUDIT COMMITTEE MINUTES

5:30 pm
Wednesday, May 30, 1990

Jefferson/Roosevelt Rooms
Howard Johnsons
Rapid City, South Dakota

The meeting was called to order by Richard Holm, MD, Chairman. Those present included Drs Richard Holm, Michael Pekas, J. A. Eckrich, Richard Porter, M. George Thompson, Bruce Lushbough, Durward Lang, Thomas Krafka, James Reynolds and Frank Messner. Staff attending included Robert Johnson and Jan Anderson.

The minutes of the previous meeting were approved as printed and distributed.

The Committee reviewed the audit prepared by McGladrey & Pullen. Mr. Johnson responded to several questions. Dr Lang then moved to approve the audit as prepared and distributed. The motion was seconded and carried.

It was decided that the president of the South Dakota Physicians' Health Group should be invited to all Council meetings to provide updates on DakotaCare.

There being no further business the meeting adjourned at 5:50 pm.

FIRST COUNCIL MEETING MINUTES

3:00 pm **Jefferson-Roosevelt Room**
Wednesday **Howard Johnsons**
May 30, 1990 **Rapid City, SD**

The meeting was called to order by Thomas Kafka, MD, Chairman at 3:15 pm. Those present were: Doctors Michael Pekas, J.A. Eckrich, Richard Porter, Bruce Lushbough, Durward Lang, James Reynolds, M. George Thompson, Thomas Kafka, Frank Messner, James Larson, Curtis Wait, Phillip Hoffsten, Stephan Schroeder, Guy Tam, C. Roger Stoltz, Robert Raszkowski, Duane Reaney, David Smith, Ed James, Richard Renka, James Engelbrecht, Mary Carpenter, Ben Chaska, James Hovland, Dennis Johnson, D. G. Ortmeier, Stephen Haas, Richard Holm and SDSMA staff Robert Johnson, Jan Anderson, Lorin Pankratz and Donna Sievers.

The minutes of the previous meeting were approved as printed and distributed.

COMMISSION/COMMITTEE REPORTS

1) Report of the Commission on Internal Affairs, Communications and Liaison - Dr. Richard Holm, Chairman of the Commission, reported to the Council regarding the meeting of the Commission on Internal Affairs, Communications and Liaison on April 27.

**MINUTES OF THE
COMMISSION ON INTERNAL AFFAIRS,
COMMUNICATIONS AND LIAISON MEETING**

Friday
1:30 pm
April 27, 1990

North Dakota Room
Howard Johnson's
Sioux Falls, SD

The meeting was called to order by Richard Holm, MD, Chairman. Present for roll call were Doctors Richard Holm, Robert Van Demark, Sr and Dan Heinemann. SDSMA staff members in attendance were Lorin Pankratz and Donna Sievers. Also in attendance were Dr Anthony Salem, guest of Dr Robert Van Demark, Sr, and medical student Robert Giebink, guest of Dr Richard Holm.

The minutes of the previous meeting were approved as printed and distributed.

1. SDSMA Public Relations Proposal - discussion was held concerning a proposal submitted by the consulting firm of Lawrence and Schiller, geared towards a positive public relations program for physicians. The Commission considered several suggested options but felt that a survey would be the most important first step at this time. A motion was made by Dr Holm to recommend the Council budget \$100,000 over the next three years towards a public relations

program. The program would begin with a public survey to determine healthcare problems and needs within the state and to define the public perception of South Dakota physicians. This information, when gathered, will be collated to determine the best course of action for our public relations efforts as well as to improve the public perception of South Dakota physicians. The motion was seconded and carried.

2. ShareCare Brochure Update - Lorin Pankratz reported to the Commission regarding the status of the ShareCare brochure which is scheduled to be printed in early May. The brochure will then be distributed to physician offices, the Department of Health, the Department of Social Services and the South Dakota Association of Senior Centers. The ShareCare program has been modified so that the ShareCare card applicant can send the application directly to the SDSMA office at no charge. If the applicant wants to, they can become a member of the South Dakota Association of Senior Centers by paying a \$5.00 fee directly to SDASC. This was accepted for information.

3. SDSMA Membership Recruitment - Unified Membership Update - Lorin Pankratz reported to the Commission regarding the resolution that will be submitted to the House of Delegates which states that the SDSMA resolves to undertake an education program to increase membership in the AMA by practicing physicians, students and residents in training with the purpose of achieving membership unification by 1995. This was accepted for information.

4. SDSMA Pictorial Membership Directory - Discussion was held concerning suggested methods which could be used to obtain physician photographs for the member directory. Sioux Valley Hospital and Rapid City Regional Hospital have volunteered the photographs currently in their directories. The Commission appointed Dr Heinemann and Dr Holm to a pictorial directory subcommittee in order to develop a system of obtaining the balance of the physician photographs.

5. AMCOM - The Commission reviewed a letter from AMCOM, which systematically supplies weekly papers with current medical and health news. This was accepted for information.

6. "HealthBeat" - Dr Barbara Yawn - The Commission reviewed materials submitted by Dr Barbara P. Yawn which feature short radio segments on health related topics. The Commission wishes to review the results of the public relations survey and delayed further discussions regarding "HealthBeat" to the fall Commission meeting.

7. HMA Distribution Network - The Commission reviewed the HMA purchasing group proposal. The Commission felt the proposal could be beneficial to small physician groups and delayed action until the fall Commission meeting in order to gather further information.

8. Palmer Associates, Inc. - The Commission reviewed a letter from Palmer Associates, Inc. which offers educational products to members at a special discount price. This was accepted for information.

9. Reception Room Subscription Services - The Commission reviewed materials submitted by EBSCO Reception Room Subscription Services. The Commission wishes to gather further information for the fall Commission meeting.

10. Minnesota Mutual Life - The Commission reviewed a letter from Minnesota Mutual Life. This was accepted for information.

11. Phyllis Hawkins & Associates, Inc. - The Commission reviewed a letter from Phyllis Hawkins & Associates, Inc. which offers a physician recruitment proposal. This was accepted for information.

12. National Library of Medicine - The Commission wishes to gather further information and defers the matter to the fall Commission meeting.

13. 1990 Doctor of the Day Program - Lorin Pankratz reported to the Commission regarding the 1990 Doctor of the Day Program. Discussion was held concerning a letter from Dr Robert Raszkowski addressing medications maintained at the Doctor of the Day office and appropriateness of prescribing habits. Dr Heinemann volunteered to meet with Dr Raszkowski to set guidelines for drugs to be maintained in the Doctor of the Day office.

14. South Dakota Journal of Medicine Update - Dr Van Demark reported to the Commission concerning the marked decrease in advertising in the South Dakota Journal of Medicine. The Commission suggested a professional consultant be contacted regarding advertisement solicitation, if reasonably cost effective. The Commission also directed that solicitation letters be sent to the hospitals and clinic managers to increase advertising in the South Dakota Journal of Medicine.

15. Worker's Compensation Law - The Commission discussed South Dakota's present worker's compensation law. A motion was made by Dr Van Demark that the Commission encourage Council referral of the worker's compensation matter to the Commission on Legislation in order to draft legislation which will conform to laws used in adjacent states. The motion was seconded and carried.

There being no further business, the meeting adjourned at 4:50 pm.

Discussion was held concerning the public relations proposals. The Council reviewed three resolutions to finance a long range public relations program. A motion was made by Dr. Johnson that the following resolution be submitted to the House of Delegates:

To: House of Delegates
From: SDSMA Council
Subject: Financing a Long Range Public Relations Program for Physicians
WHEREAS, the media, state and national legislature and the public in general are more critical of the medical profession; and
WHEREAS, the public's concern about access to and the increased cost of health care contribute to the their feelings about physicians; and
WHEREAS, the SDSMA Council and Commission on Internal Affairs, Communications and Liaison believe a long term public relations effort can educate the public about health care and physicians; and
WHEREAS, the Commission on Internal Affairs, Communications and Liaison has recommended a public opinion survey be conducted to determine attitudes about physicians as well as to identify the specific health care concerns of the public; and
WHEREAS, such a public relations program to be effective will cost approximately \$100,000 over a three year period; now

THEREFORE BE IT RESOLVED, that the House of Delegates authorize the Council to conduct a public opinion survey at an estimated cost of \$15,000 and following a review of the results of this survey by the Council that the SDSMA President, Chairman of the Council and Speaker of the House call a special meeting of the House of Delegates to determine an appropriate course of action and method of financing a long term public relations effort.

The motion was seconded and carried.

A motion was made by Dr. Larson to approve the balance of the report of the Commission on Internal Affairs, Communication and Liaison. The motion was seconded and carried.

2) Report of the Commission on Professional Liability - Lorin Pankratz reported to the Council regarding the Professional Liability Commission meeting on May 10.

MINUTES OF THE COMMISSION ON PROFESSIONAL LIABILITY

Thursday
1:30 pm
May 10, 1990

Dorchester Room
Ramkota Inn
Sioux Falls, SD

The meeting was called to order by Jerry Walton, MD, Chairman. Those members present were Doctors Jerry Walton, Jack Robbins, William Sorrels, Mitchel Rydberg, and Robert Van Demark, Jr. Staff members present were Lorin D. Pankratz and Donna Sievers.

The minutes of the previous meeting were reviewed. Discussion was held concerning the issue of "staying a statute". It is the opinion of Dave Gerdes, legal counsel for the State Medical Association, that the statute of limitations could be stayed only if agreed to by both parties. The only other exceptions being: 1) continuing treatment rule; and 2) fraudulent concealment. This was accepted for information. The minutes of the previous meeting were approved as printed and distributed.

OLD BUSINESS:

1. South Dakota Data Extrapolated from Minnesota Hatch Report and Information from the South Dakota Division of Insurance - The Commission reviewed information received from the State of Minnesota Department of Commerce and from the South Dakota Division of Insurance. The Commission found the tables submitted to be very confusing and discussed contacting individuals familiar with the data to clarify the information for the Commission members.

A motion was made by Dr Sorrels that Dr Driscoll, Law Professor, USD Law School, be invited to the next Commission meeting concerning interpretation of the St Paul and Division of Insurance data and discuss alternative approaches in dealing with St Paul Insurance with regard to the Hatch report and malpractice premium roles. The motion was seconded and carried.

The Commission also discussed tort reform in South Dakota and the current \$1,000,000 cap. The law currently in place has not been challenged; therefore, it is difficult to compare to other states.

Discussion was held concerning frivolous claims legislation. Currently, South Dakota does not have a penalty for claims filed which have no merit. The Commission also dis-

cussed the Harvard based study reviewed in the New England Journal of Medicine dealing with frivolous claims. The study indicated that 80% of filed claims are without merit. The Commission will obtain a copy of the study for review at the next Commission meeting.

The Commission discussed the Iowa Medical Society's "captive" malpractice insurance company and problems encountered.

Discussion was held concerning the possibility of contacting the State Bar of South Dakota to jointly examine malpractice problems.

Dr Van Demark submitted to the Commission a copy of an article from the New York Times which indicates the St Paul Group recently released \$250 million from reserves for old claims to revenues. The Commission instructed a letter and copy of the article be forwarded to the Division of Insurance for review. The Commission also instructed the St Paul Company be contacted to request their '88 and '89 data for South Dakota; indicating the information be set after June 1, in order to assure that all data submitted is current.

2. Pension Plan Protection - 1990 Legislation - The Commission reviewed Senate Bill 297 and letter from Attorney Timothy M. Engel regarding pension plan protection. The Commission could see merit in the bill but wishes to gather further information from other interested groups before reporting back at the next Commission meeting.

NEW BUSINESS:

1. Review and Discussion of Risk Management Information

(A) St Paul Fire & Marine Packet - The Commission reviewed information provided by St Paul Fire & Marine. Discussion was held concerning the following:

1) Self-Assessment Guide. This pamphlet would be sent directly to the SDSMA for distribution in Association mailings. Brief risk management "tip fliers" will be sent out on a bimonthly basis. The Association can re-evaluate after six months to one year to decide if the pamphlet and tip fliers distribution should be continued.

2) Risk Management Video Library. A risk management video library can be used by the Association on a loan basis. The tapes will be reviewed by each member for possible use.

3) Semi-annual Claims Analysis. This would include a breakdown by location, specialty, allegation and would compare South Dakota Statistics to the region and the country. The Commission directed that such information be obtained.

4) Articles on Risk Management Topics. Articles on specific risk management topics, written by St Paul risk managers can be provided for the South Dakota Journal of Medicine. The articles would first be reviewed by Dr Walton and Dr Van Demark Sr before publication.

A motion was made by Dr Sorrels to utilize the above risk management options offered by St Paul Fire & Marine. The motion was seconded and carried.

B) AMA Memorandum - The Commission discussed a memorandum from the AMA concerning risk management principles and commentaries for the medical office. The Commission instructed a copy be obtained for review at the fall Commission meeting.

2. Professional Liability Activities in Other States - The Commission discussed information submitted by the Montgomery County Medical Society, the South Carolina Medical Society and the Illinois State Medical Association. The Commission was especially interested in the Illinois Certificate of Merit requirement. The enactment of the Certificate of Merit has proven vital in the reduction of non-meritorious suits in medical malpractice. The Commission recommends the matter be referred to the Medical-Legal Commission for discussion.

3. Guidelines for Expert Medical Witnesses - Discussion was held concerning the lack of ethical standards for physicians who testify as "expert" medical witnesses. The Commission discussed the possible use of a course of instruction on presenting expert testimony. This was accepted for information.

The Commission discussed possible establishment of a support group for physicians who have been involved in lawsuits or who have had malpractice claims filed against them. The Commission recommended the topic be referred to the Commission on Scientific Medicine as a possible subject for an annual meeting program.

In addition, the Commission requested information regarding this concept be gathered from other medical societies where such groups might exist.

The Commission discussed problems encountered and the likelihood of malpractice claims in situations where hospitals require on-call duty for emergency room procedures outside a physician's specialty. The Commission will gather information for the fall Commission meeting.

There being no further business, the meeting adjourned at 4:30 pm.

A motion was made to ask Dr. Driscoll to review and interpret the data provided by St. Paul Company and the Division of Insurance. The motion was seconded and failed. A motion was made by Dr. Johnson to contact Dave Gerdes, SDSMA legal counsel, to interpret the data obtained from St. Paul and the Division of Insurance. The motion was seconded and carried.

The Council reviewed information obtained from St. Paul Fire & Marine concerning risk management. A motion was made by Dr. Reynolds to accept the proposal for providing risk management information to South Dakota physicians. The motion was seconded and carried.

A motion was made by Dr. Haas to approve the remainder of the report of the Commission on Professional Liability. The motion was seconded and carried.

3) Medicare Patterns of Care Committee Report - Dr. Reynolds reported to the Council regarding the Medicare Patterns of Care meeting on May 18.

MINUTES

MEDICARE PATTERNS OF CARE

10:30 am Westward Ho Country Club
Friday, May 18, 1990 Sioux Falls, South Dakota

The meeting was called to order at 10:30 am. Those present included Doctors Larry Schafer, James Reynolds, Loren Tschetter, Carlton Kom, Larry Meyer, Brian Hurley, John Barker, David Holzwarth, Clark Likness, Stephan Schroeder, Eugene Hoxtell, Frederick Harris, Robert Rietz, Vaughn Meyer, Dale Berkebile, Steven Hata, David West

and Harlan Payne, and staff, Robert Johnson, Jan Anderson and Lorin Pankratz.

The committee first viewed the video entitled, "Practice Parameters: Strategies for Patient Management" which was produced by the American Medical Association. Mr. Johnson provided background on the development of this proposed program, how it came about, who gathered the information and developed the patterns, when it was submitted to the State Medical Association and the action taken by the Council in November 1989 which caused HCFA to delay implementation of the proposed program until further study and input could be obtained from the physicians in South Dakota. A discussion ensued concerning the purpose of the program and the feelings of those who studied the various patterns. The consensus was that the proposal should be rejected; however, along with the notification of rejection specific concerns should be listed and documented. A subcommittee was appointed to prepare a resolution for consideration by the Council of the State Medical Association at their meeting on May 30. Members of the subcommittee included Doctors John Barker, Robert Rietz, Rodney Parry, Larry Meyer, David Holzwarth, Clark Likness and Carlton Kom. The attached resolution was prepared and presented to the entire committee, and the resolution was adopted unanimously with instructions that it be submitted to the Council of the State Medical Association for consideration. It was recommended that the resolution, if adopted by the Council and the House of Delegates, be sent to HCFA, North Dakota Blue Cross/Blue Shield, the Medicare Denver Regional office, the American Medical Association, Senator Larry Pressler, Senator Tom Daschle and Congressman Tim Johnson along with documentation on specific areas of concern as prepared by the various specialties following their study of the proposed patterns.

There being no further business the meeting adjourned at 1:45 pm.

RESOLUTION

TO: Council
FROM: South Dakota State Medical Association
Special Committee to Study Patterns of Care Program
SUBJECT: Medicare Proposal for Patterns of Care Program
WHEREAS, North Dakota Blue Cross/Blue Shield contracted with the Health Care Financing Administration (HCFA) to develop a Patterns of Care program to establish a claims review method for Medicare Part B linking procedures to diagnoses and
WHEREAS, North Dakota Blue Cross/Blue Shield collected data on patient care and delivery of services using their computer base of patients in North Dakota and South Dakota without informing South Dakota physicians of their intent, and
WHEREAS, Patterns of Care developed from their computer data reflected information collected in 1987 and 1988, at which time no unified coding system existed, precluding correlation of diagnoses and services, and
WHEREAS, comprehensive correlation of laboratory tests with diagnoses codes appears impossible since reference laboratories are not required to use diagnostic codes for laboratory procedures, and

WHEREAS, the definitions of disease processes as proposed in the Patterns of Care are simplistic, incomplete and inappropriate without consideration of chronicity of disease or related factors, and

WHEREAS, the geographic mal-distribution of patients and physicians in the upper midwest, the complexity of primary care and referral patterns, and the frequent necessity of multidisciplinary care precludes the ability of a single physician to monitor the types or frequency of laboratory test or methods of treatment, and

WHEREAS, the title "Patterns of Care" implies a relationship to quality and we, the physicians of South Dakota, feel that quality of care cannot be dictated by fiscal restraints, and

WHEREAS, the American Medical Association, specialty organizations, and the South Dakota State Medical Association endorsed the American Medical Association document "Guide for the Development of Practice Parameters", and

WHEREAS, South Dakota physicians have traditionally provided quality care to their patients at one of the lowest per capita health care costs in the nation, and

WHEREAS, the physician patient relationship is an integral part of the healing art and the Patterns of Care concept has a distinct potential for adversarial relationships and probable rationing of medical care, and

WHEREAS, we, the physicians of South Dakota, having intensively studied all sixty-three Patterns of Care, find them to be hopelessly flawed, therefore be it

RESOLVED, that the physicians of South Dakota reject the proposed Patterns of Care and urge the Health Care Financing Administration (HCFA) to withdraw future financial support for this project.

It is recommended the resolution along with substantiating explanations as provided by various specialty groups in their review be sent to:

Health Care Financing Administration
 North Dakota Blue Cross/Blue Shield
 Medicare Denver Regional Office
 American Medical Association
 Senator Larry Pressler
 Senator Tom Daschle
 Congressman Tim Johnson

A motion was made by Dr. Pekas that the following resolution be submitted to the House of Delegates:

To: House of Delegates
 From: SDSMA Council
 Subject: Medicare Proposal for Patterns of Care Program

WHEREAS, North Dakota Blue Cross/Blue Shield contracted with the Health Care Financing Administration (HCFA) to develop a Patterns of Care program to establish a claims review method for Medicare Part B linking procedures to diagnoses, and

WHEREAS, North Dakota Blue Cross/Blue Shield collected data on patient care and delivery of services using their computer base of patients in North Dakota and South Dakota without informing South Dakota physicians of their intent, and

WHEREAS, Patterns of Care developed from their computer data reflected information collected in 1987 and 1988, at which time no unified coding system existed precluding correlation of diagnoses and services, and

WHEREAS, comprehensive correlation of laboratory tests with diagnoses codes appears impossible since reference laboratories are not required to use diagnostic codes for laboratory procedures, and

WHEREAS, the definition of disease processes as proposed in the Patterns of Care are simplistic, incomplete and inappropriate without consideration of chronicity or complexity of disease or related factors, and

WHEREAS, the geographic mal-distribution of patients and physicians in the upper midwest, the complexity of primary care and referral patterns, and the frequent necessity of multidisciplinary care precludes the ability of a single physician to monitor the types or frequency of laboratory tests or methods of treatment, and

WHEREAS, the title "Patterns of Care" implies a relationship to quality and we, the physicians of South Dakota, feel that quality of care cannot be dictated by fiscal restraints, and

WHEREAS, the American Medical Association, specialty organizations, and the South Dakota State Medical Association endorse the American Medical Association document "Guide for the Development of Practice Parameters", and

WHEREAS, South Dakota physicians have traditionally provided quality care to their patients at one of the lowest per capita health care costs in the nation, and

WHEREAS, the physician patient relationship is an integral part of the healing art and the Patterns of Care concept has a distinct potential for adversarial relationships, rationing of medical care, and poor quality medical care, and

WHEREAS, we, the physicians of South Dakota, having intensively studied all sixty-three Patterns of Care, find them to be hopelessly flawed, therefore be it

RESOLVED, that the physicians of South Dakota reject the proposed Patterns of Care and urge the Health Care Financing Administration (HCFA) to withdraw future financial support for this project, and be it further

RESOLVED, that the South Dakota State Medical Association endorse the document "Guide for the Development of Practice Parameters" developed by the American Medical Association along with other national specialty societies.

It is recommended the resolution along with substantiating explanations as provided by various specialty groups in their review be sent to:

Health Care Financing Administration
 North Dakota Blue Cross/Blue Shield
 Medicare Denver Regional Office
 American Medical Association
 Senator Larry Pressler
 Senator Tom Daschle
 Congressman Tim Johnson
 The motion was seconded and carried.

OLD BUSINESS:

1) Report on South Dakota Drug Information Center - The Council reviewed a letter and First Quarter Usage Report from the South Dakota Drug Information Center. This was accepted for information.

2) Discussion on Formation of Maternal Mortality Surveillance Committee - The Council reviewed a letter from Dave Gerdes, SDSMA legal counsel. A motion was made by Dr. Messner that Dr. Mutch be re-contacted to discuss this matter further at the next Council meeting. The motion was seconded and carried.

3) Meeting with Representatives of the South Dakota Medical Assistants - Donna Dybvig, a practicing medical assistant and representatives from Lake Area Vocational School spoke to the Council concerning the practice of medical assistants and a previous Attorney General Opinion which states only licensed allied health personnel may administer injections. Discussion was held concerning licensure, supervision, certification and educational background for medical assistants. A motion was made by Dr. Messner to support the Medical Assistants and refer this matter and proposed legislation to the Commission on Legislation. The motion was seconded and carried.

4) Statistics on State's Preadmission Assessment Program - Dr. Krafka reported to the Council concerning the Preadmission Assessment Program. He reported the Department estimates 9% of the 6,550 assessments done have been diverted from nursing homes; thus saving approximately \$5,000,000. It was noted there is no data regarding more hospitalizations for those diverted and what those costs might be. This was accepted for information.

NEW BUSINESS:

1) Election to Honorary Life Membership - A motion was made by Dr. Larson to elect Roscoe Dean, MD, William Mattson, MD and Wm G.M. Huet, MD to honorary life membership in the State Medical Association. The motion was seconded and carried.

2) Election to SoDaPAC Board of Directors - A motion was made by Dr. Larson to appoint the following to the SoDaPAC Board of Directors for 3 year terms:

District 9 Charles Hart, MD
Mrs. Marilyn Engelbrecht

(Re-appointed)

District 1 Mrs. Marie Hovland

District 3 Mrs. Ila Lushbough

District 7 Brad Randall, MD
Michael Pekas, MD
Mrs. Connie Benson
Mrs. Ruth Parry

District 8 R.I. Porter, MD
Duane Reaney, MD
Mrs. Marlys Porter

District 9 Mrs. Jackie Slingsby

The motion was seconded and carried.

3) Approval to Authorize Loan - A motion was made to approve authorization for loans on the current SDSMA building expansion and the Brzica building. The motion was seconded and carried.

4) Nominations for AMA Awards - No recommendations were received at this time.

5) Request from SD Water Congress to Endorse Resolu-

tion - The Council reviewed a resolution from the SD Water Congress and refers this matter to the appropriate commission for review and recommendations.

6) Rural Health Care Resolutions - A motion was made by Dr. Lushbough to refer to the House of Delegates, Resolution #4, Commendations to Governor Mickelson for His Leadership in Working to Define the Rural Health Care Issues and Resolution #5, South Dakota's Transportation and Communication Systems and Their Effect on the Delivery of Health Care Service in Our Rural Communities. The motion was seconded and carried.

7) Nominations to ACCME Committee for Review & Recognition - A motion was made by Dr. Lushbough to nominate Robert Raszowski, MD, for consideration of appointment to the ACCME Committee for Review and Recognition. The motion was seconded and carried.

There being no further business, the meeting adjourned at 5:30 pm.

SECOND COUNCIL MEETING MINUTES

11:00 am
Saturday
June 2, 1990

Jefferson/Roosevelt Rooms
Howard Johnson's
Rapid City, SD

The meeting was called to order by Thomas Krafka, MD, Chairman. Those present for roll call were: Doctors J. A. Eckrich, Jr, R. I. Porter, M. George Thompson, Durward Lang, Robert Ferrell, Thomas Krafka, James Reynolds, Michael Pekas, Curtis Wait, Phillip Hoffsten, Stephan Schroeder, Walter Baas, Jeffrey Hagen, Rod Parry, Guy Tam, C. Roger Stoltz, Robert Raszowski, Duane Reaney, Carol Zielike, James Engelbrecht, Richard Renka, Mary Carpenter, Ben Chaska, Thomas Olson, Richard Holm, James Hovland, Lucio Margallo, Stephen Haas, and SDSMA staff Robert Johnson, Jan Anderson, Lorin Pankratz and Donna Sievers.

A motion was made to dispense with the reading of the minutes of the previous meeting pending printing and distribution. The motion was seconded and carried.

BUSINESS:

1) Seating of New Councilors - Dr. Krafka introduced the following newly elected councilors.

Mitchell District #6

Walter Baas, MD, Councilor

Lucio Margallo, MD, Alternate Councilor

Black Hills District #9

Carol Zielike MD, Councilor

John Barlow, MD, Alternate Councilor

Brookings/Madison District #3

Richard Holm, MD, Alternate Councilor

2) Election of Council Chairman - Dr. Lang nominated Dr. Thomas Krafka for Chairman of the Council. It was moved that nominations cease and a unanimous ballot cast for Dr. Krafka. The motion was seconded and carried.

3) Election of Secretary-Treasurer - Dr. Lang moved to nominate Mary Carpenter, MD to the position of Secretary-Treasurer of the South Dakota State Medical Association. A motion was made that nominations cease and a unanimous ballot cast for Dr. Carpenter. The motion was seconded and carried.

4) Proposed Dates for 1990-91 Council Meetings - The Council reviewed the proposed dates for the 1990-91 Council meetings, as follows:

Friday, September 21, 1990 - Sioux Falls

Friday, November 16, 1990 - Pierre

Friday, April 5, 1991 - Sioux Falls

This was accepted for information.

5) Honorary Life Membership - Dr. Porter moved to elect Myron Fahrenwald, MD, to honorary life membership in the South Dakota State Medical Association. The motion was seconded and carried.

There being no further business, the meeting adjourned at 11:10 am.

MINUTES OF THE FIRST HOUSE OF DELEGATES MEETING

9:30 am Washington Room
Thursday Howard Johnsons
May 31, 1990 Rapid City, South Dakota

The meeting was called to order by Speaker of the House James Reynolds, MD. Those present for roll call were Doctors Michael Pekas, Jerome Eckrich, Richard Porter, M. George Thompson, James Reynolds, Bruce Lushbough, Durward Lang, Frank Messner, James Hovland, James Larson, Curtis Wait, Stephan Schroeder, Jeffrey Hagen, Rodney Parry, Larry Finney, Dennis Johnson, Guy Tam, C. Roger Stoltz, Robert Raszkowski, David Smith, Duane Reaney, James Engelbrecht, Thomas Krafka, Carol Zielike, Steve Haas, Richard Renka, Mary Carpenter, Ben Chaska, Thomas Luzier, Marlin Lamb, Gerald Tracy, Calvin Roseth, Gary Bruning, Richard Holm, Noel Chicoine, Thomas Huber, Richard Smith, Howard Saylor, Richard Gere, Walter Baas, Lucio Margallo, Robert Talley D. G. Ortmeier, James Ryan, Charley Gutch, William Rossing, Russell Orr, John Barker, Robert VanDemark, Jr, Stephen Billion, John Billion Daniel Kennelly, Theodore Sattler, Julie Stevens, Robert Ferrell, Craig Hansen Cynthia Weaver, Robert Goodhope, Russell Harris, Stephen Haas, John Barlow, James Rud, Nathaniel Whitney, O. Myron Jerde, Ed Sweet and David Yecha.

Dr. Reynolds recognized the new members seated in the House of Delegates and thanked all members for participating in the business of the House and Reference Committees.

Dr. Hagen moved to dispense with the reading of the minutes of the previous meeting and approve them as published and distributed. The motion was seconded and carried.

Dr. Reynolds announced the appointments to the Nominating Committee as determined by Michael Pekas, MD, President. Members appointed to the Nominating Committee were Doctors Jerome Eckrich, Marlin Lamb, Curtis Wait, Phillip Hoffsten, Hiroo Kapur, Walter Baas, Guy Tam, Larry Meyer, James Engelbrecht, Ed Sweet, David Yecha and Ben Chaska, with Dr. Engelbrecht serving as chairman.

Dr. Reynolds as Speaker of the House appointed the members of the four reference committees. These appointments are as follows:

1. Reference Committee on Credentials, Resolutions and Memorials and Reports of the Officers and Councilors: Dr. Robert Goodhope, Chairman, Dr. John Barlow, Vice Chair-

man, Dr. Curt Wischmeier, Dr. Marion C. Thompson, Dr. Mark Werpy, Dr. Dileep Bhat, Dr. Charley Gutch, Dr. John Billion, Dr. Daniel Kennelly and Dr. Cynthia Weaver, members.

2. Reference Committee on Reports of Commissions on Medical Service; Legislation and Governmental Relations: Dr. Stephen Haas, Chairman, Dr. John Fritz, Dr. Michael Haley, Dr. Robert Talley, Dr. Stephen Billion, Dr. Dennis Johnson, Dr. Gary Bruning, Dr. Brian Hurley, Dr. J. Geoffrey Slingsby, Dr. Howard Saylor and Lisa Staber, members.

3. Reference Committee on Reports of Commissions on Scientific Medicine; Internal Affairs, Communications and Liaison; and Professional Liability: Dr. Richard Holm, Chairman, Dr. John Barker, Vice Chairman, Dr. Thomas Luzier, Dr. Richard Smith, Dr. Russell Orr, Dr. Robert VanDemark, Jr, Dr. Julie Stevens, Dr. Robert Ferrell and Dr. Russell Harris, members.

4. Reference Committee on Reports of Special Committees and Miscellaneous Business: Dr. James Ryan, Chairman, Dr. David Elson, Vice Chairman, Dr. Roger Carter, Dr. Richard Gere, Dr. Loren Tschetter, Dr. H. Bruce Vogt, Dr. Carol Zielike, Dr. James Rud and Dr. Roger Werth, members.

Dr. Lang moved that the reports of the officers and councilors not be read and be referred to the appropriate reference committee. The motion was seconded and carried.

Dr. Reynolds called for the introduction of resolutions from the Council which have not been published in the Delegate's Handbook. Dr. Stoltz introduced Resolution #6 commending Governor George Mickelson for his leadership in working to define the rural health care issues affecting South Dakota. This was referred to the Reference Committee on Reports of the Commissions on Scientific Medicine; Internal Affairs, Communications and Liaison; and Professional Liability.

RESOLUTION #6

TO: House of Delegates
South Dakota State Medical Association

FROM: Council
South Dakota State Medical Association

SUBJECT: Commending Governor George Mickelson for His Leadership in Working to Define the Rural Health Care Issues Affecting South Dakota.

WHEREAS, the population and economy of South Dakota for the most part have been agriculturally oriented; and

WHEREAS, the trend has been for people and health care services to migrate to larger centralized communities; and

WHEREAS, the creation of the Office of Rural Health by Governor Mickelson recognized this trend and the subsequent problems of access to health care; and

WHEREAS, Governor Mickelson has called for a meeting of health care providers, consumers and other interested persons to define the health care issues facing South Dakotans and make practical reasonable recommendations,

BE IT RESOLVED, that the South Dakota State Medical Association, representing over 700 physicians in South Dakota, formally and publicly recognize Governor George Mickelson for his efforts to

identify the real problems in delivering health care in a rural environment; and

BE IT FURTHER RESOLVED, that the South Dakota State Medical Association provide whatever assistance and expertise deemed appropriate to support the Governor in his health care endeavors.

Resolution was adopted at the Second House of Delegates meeting.

Dr. Barker introduced Resolution #3, Medicare Proposal for Patterns of Care Program. This was referred to the Reference Committee on Reports of the Commissions on Medical Service; and Legislation and Governmental Relations.

RESOLUTION #3

TO: House of Delegates
South Dakota State Medical Association

FROM: Council
South Dakota State Medical Association

SUBJECT: Medicare Proposal for Patterns of Care Program

WHEREAS, North Dakota Blue Cross/Blue Shield contracted with the Health Care Financing Administration (HCFA) to develop a Patterns of Care program to establish a claims review method for Medicare Part B linking procedures to diagnoses, and

WHEREAS, North Dakota Blue Cross/Blue Shield collected data on patient care and delivery of services using their computer base of patients in North Dakota and South Dakota without informing South Dakota physicians of their intent, and

WHEREAS, Patterns of Care developed from their computer data reflected information collected in 1987 and 1988, at which time no unified coding system existed, precluding correlation of diagnoses and services, and

WHEREAS, comprehensive correlation of laboratory tests with diagnoses codes appear impossible since reference laboratories are not required to use diagnostic codes for laboratory procedures, and

WHEREAS, the definitions of disease processes as proposed in the Patterns of Care are simplistic, incomplete and inappropriate without consideration of chronicity or complexity of disease or related factors, and

WHEREAS, the geographic mal-distribution of patients and physicians in the upper midwest, the complexity of primary care and referral patterns, and the frequent necessity of multidisciplinary care precludes the ability of a single physician to monitor the types or frequency of laboratory tests or methods of treatment, and

WHEREAS, the title "Patterns of Care" implies a relationship to quality and we, the physicians of South Dakota, feel that quality of care cannot be dictated by fiscal restraints, and

WHEREAS, the American Medical Association, specialty organizations, and the South Dakota State Medical Association endorse the American Medical Association document "Guide for the Development of Practice Parameters", and

WHEREAS, South Dakota physicians have traditionally provided quality care to their patients at one of the lowest per capita health care costs in the nation, and

WHEREAS, the physician patient relationship is an integral part of the healing art and the Patterns of Care concept has a distinct potential for adversarial relationships, rationing of medical care, and poor quality medical care, and

WHEREAS, we, the physicians of South Dakota, having intensively studied all sixty-three Patterns of Care, find them to be hopelessly flawed, therefore be it

RESOLVED, that the physicians of South Dakota reject the proposed Patterns of Care and urge the Health Care Financing Administration (HCFA) to withdraw future financial support for this project, and be it further

RESOLVED, that the South Dakota State Medical Association endorses the document "Guide for the Development of Practice Parameters" developed by the American Medical Association along with other national specialty societies.

(It is recommended the resolution along with substantiating explanations as provided by various specialty groups in their review be sent to:

Health Care Financing Administration
North Dakota Blue Cross/Blue Shield
Medicare Denver Regional Office
American Medical Association
Senator Larry Pressler
Senator Tom Daschle
Congressman Tim Johnson)

Resolution was adopted at the Second House of Delegates meeting.

Dr. Larson introduced Resolution #4 on financing a long range public relations program for physicians. This was referred to the Reference Committee on Credentials, Resolutions and Memorials; and Reports of Officers and Councilors.

RESOLUTION #4

TO: House of Delegates
South Dakota State Medical Association

FROM: Council
South Dakota State Medical Association

SUBJECT: Financing a Long Range Public Relations Program for Physicians

WHEREAS, the media, state and national legislature and the public in general are more critical of the medical profession; and

WHEREAS, the public's concern about access to and the increased cost of health care contribute to their feelings about physicians; and

WHEREAS, the SDSMA Council and Commission on Internal Affairs, Communications and Liaison believe a long term public relations effort can educate the public about health care and physicians; and

WHEREAS, the Commission on Internal Affairs, Communications and Liaison has recommended a public opinion survey be conducted to determine attitudes about physicians as well as to identify the specific health care concerns of the public; and

WHEREAS, such a public relations program to be effective will cost approximately \$100,000 over a three year period; therefore be it

RESOLVED, that the House of Delegates authorize the Council to conduct a public opinion survey at an estimated cost of \$15,000 and following a review of the results of this survey by the Council that the SDSMA President, Chairman of the Council and Speaker of the House call a special meeting of the House of Delegates to determine an appropriate course of action and method of financing a long term public relations effort.

Resolution was amended deleting the proposed resolve and restating it as therefore be it resolved, that the House of Delegates authorize the Council to commit an initial funding amount of \$15,000 to establish a basic plan for long range public relations and an education program. The SDSMA President, Chairman of the Council and Speaker of the House will report to the House on its progress. The resolution as amended was adopted at the Second House of Delegates meeting.

Dr. Tam introduced Resolution #5 on South Dakota's transportation and communication systems and their effect on the delivery of health care services in our rural communities. This was referred to the Reference Committee on Reports of Commissions on Scientific Medicine; Internal Affairs, Communications and Liaison; and Professional Liability.

RESOLUTION #5

TO: House of Delegates
South Dakota State Medical Association
FROM: Council
South Dakota State Medical Association
SUBJECT: South Dakota's Transportation and Communication Systems and Their Effect on the Delivery of Health Care Services in Our Rural Communities

WHEREAS, many of our citizens live in communities without a physician or hospital; and

WHEREAS, it can be a considerable distance to a community with even limited medical services available; and

WHEREAS, it is an even greater distance to larger medical centers that can handle major, serious medical emergencies; and

WHEREAS, ground and air ambulances provide an important, necessary link between our rural and urban communities; and

WHEREAS, the medical and communications technology available to us today through mobile units and stationary facilities can enhance access to certain services,

BE IT RESOLVED, that the South Dakota State Medical Association encourage research efforts by the appropriate local, state and/or federal agencies in cooperation with efforts already underway through Governor Mickelson's office, to determine what technology is available and appropriate to increase access to health care services through efficient and effective methods of medical transportation and communication.

Resolution was adopted at the Second House of Delegates meeting.

Dr. Reynolds called for introduction of resolutions from district medical societies which have not been published in the Delegate's Handbook. There being none he called for introduction of resolutions from individual members which have not been published in the Delegate's Handbook. Dr. Stephen Haas introduced Resolution #7 establishing a Committee on Aging. This was referred to the Reference Committee on Reports of Special Committees and Miscellaneous Business.

RESOLUTION #7

TO: House of Delegates
South Dakota State Medical Association
FROM: David Sandvik, MD
SUBJECT: Committee on Aging

BE IT RESOLVED, that a Committee on Aging be established by the South Dakota State Medical Association.

The Committee on Aging shall expand/replace the present Medicare Oversight Committee.

The Committee on Aging shall be composed of representatives of all medical specialties and subspecialties in the state with strong representation, from practicing geriatricians, rural physicians, and other primary care specialists involved with the care of the aged. All primary care members and geriatricians will be expected within reason to attend the majority of meetings. Other specialty and subspecialty members are expected to attend as they wish, but certainly when issues falling within their area of expertise are discussed.

Clinic and practice administrators may attend meetings of the committee and serve as ad hoc experts as needed.

The Committee on Aging shall serve as the official conduit for communications between members of the South Dakota State Medical Association and the medical director of the Medicare intermediary for the state. The committee shall advise the medical director regarding clinical implications of present and future Medicare policies and screens, advise on coverage for new procedures, and comment on any other recommendations from the Medicare intermediary.

All substantive issues raised in the Committee on Aging shall be referred to either the Council of the State Medical Association, or to other appropriate Association committees.

The Committee shall devise means of disseminating new information concerning Medicare to members of the state society such as informational meetings, articles in The South Dakota Journal of Medicine, special mailings, etc.

Resolution was not adopted at the Second House of Delegates meeting but was referred to the Special Medicare Committee for review of its mission statement and its membership to determine if there is a need for expansion.

Dr. Reynolds referred pages 1 - 13 of the Delegate's Handbook to the Reference Committee on Credentials, Resolutions and Memorials; and Reports of Officers and Councilors.

Dr. Reynolds referred pages 14 - 15 of the Delegate's Handbook to the Reference Committee on Reports of Commissions on Medical Service; and Legislation and Governmental Relations.

Dr. Reynolds referred pages 16 - 22 of the Delegate's Handbook which includes Resolution #2 on the marketing of Dakota cigarettes and Bylaw Amendment #1 regarding dues for associate members, to the Reference Committee on Reports of Commissions on Scientific Medicine; Internal Affairs, Communications and Liaison; and Professional Liability.

RESOLUTION #2

TO: House of Delegates
South Dakota State Medical Association

FROM: Rodney Parry, MD, Active SDSMA Member
Associate Members:
Bruce Arvold, MD John Lassegard, MD
Jeanne Bennett, MD Sophie Marrs, MD
Peter Debelius, MD Jackie McKenzie
Todd Dehli, MD Kevin Myhre
Kurt Devine, MD James Olson
Mark Doohen, MD Ramona Peshek, MD
Paul Frazer, MD Mark Renner, MD
Lisa Germscheid, MD Mark Rodig, MD
Peter Germscheid, MD Lisa Staber
Karen Heiling, MD Tim Teslow, MD
Paula Hicks, MD Arden Virnig, MD
Patty Hook, MD George Wagner, MD
Richard Jensen, MD Rick Wagner
David Kellen, MD Mary Watson, MD

SUBJECT: Marketing of Dakota Cigarettes

WHEREAS, America pays \$52 billion annually or \$221 per American in health care, insurance costs and lost productivity because of tobacco usage; and

WHEREAS, smoking is responsible for an estimated 30% of all cancer deaths including 87% of lung cancer, the leading cause of cancer mortality, 21% of all deaths from coronary heart disease, 18% of all deaths from cerebral vascular disease, and 82% of all deaths due to chronic obstructive pulmonary disease; and

WHEREAS, the physicians of South Dakota and the citizens of South Dakota recognize the importance of healthy lifestyles and have cooperatively reduced tobacco consumption to the fifth lowest rate in the nation; and

WHEREAS, tobacco companies promote tobacco sales by targeting groups who have the greatest potential for tobacco addiction through the use of persuasive advertising, the lack of college education, and minimal interaction with health care providers; and

WHEREAS, R. J. Reynolds Tobacco Company has introduced a brand of cigarettes named Dakota with sales specifically targeted for undereducated women with the name Dakota to reflect a virile, highly rewarding lifestyle; and

WHEREAS, Governor George S. Mickelson has formally objected to the introduction of Dakota cigarettes which associates this state's image with a product linked to health problems such as low birth weight babies and lung cancer; be it

RESOLVED, that the South Dakota State Medical Association join Governor George S. Mickelson in his

protest of the introduction and marketing of Dakota cigarettes; and be it further

RESOLVED, that the South Dakota State Medical Association condemn the marketing of a tobacco product specifically targeted to individuals who are at greatest risk for life long tobacco addiction and those who have specific unique health risks such as a pregnant woman and her fetus.

Resolution was adopted at Second House of Delegates Meeting.

BYLAW AMENDMENT #1

TO: House of Delegates
South Dakota State Medical Association

FROM: Council
South Dakota State Medical Association

SUBJECT: Dues for Associate Members

ARTICLE 1X

Finances

Section 1. Revenue

a: Dues and Assessments

(3) exceptions -- State or federally employed physicians who are active members of other state societies but temporarily stationed in South Dakota shall be granted membership without payment of state dues. Life ~~and associate~~ members shall not be required to pay dues. A new member enrolled after July 1 of each year shall be required to pay only one-half of the annual dues.

--- deletions

((())) additions

Bylaw amendment was adopted at the Second House of Delegates meeting.

Dr. Reynolds referred pages 23 - 31 of the Delegate's Handbook, which includes Resolution #1 on an educational program to increase AMA membership, to the Reference Committee on Reports of Special Committees and Miscellaneous Business.

RESOLUTION #1

TO: House of Delegates
South Dakota State Medical Association

FROM: Council
South Dakota State Medical Association

SUBJECT: Educational Program to Increase Membership in AMA--Unification

RESOLVED, the South Dakota State Medical Association undertake an educational program to increase membership in the American Medical Association by practicing physicians, students and residents in training with the purpose of achieving unification by 1995.

Resolution was amended to strike "Unification" in the subject and to strike "with the purpose of achieving unification by 1995" in the resolve and adding a period (.) after "training" in the resolve. The resolution as amended was adopted at the second House of Delegates meeting.

Dr. Reynolds then asked Mr. Johnson, the Association's Chief Executive Officer, to present information to the House of Delegates regarding DakotaCare. Dr. Pekas moved that the House be convened in executive session for Medical Association members only during this presentation. The motion was seconded and carried.

Following the discussion on DakotaCare the House reconvened in open session. Dr. Reynolds briefly reviewed the annual meeting schedule of events and encouraged everyone to visit the sponsoring company displays. Dr. Holm asked physicians to suggest to the exhibitors that they consider advertising in the Journal of Medicine. Dr. Kennelly stated that it is his recommendation that the State Medical Association be opposed to gambling, even in a limited way.

There being no further business the meeting adjourned at 11:00 am.

MINUTES OF THE SECOND HOUSE OF DELEGATES MEETING

10:00 am Washington Room
Saturday Howard Johnson Motor Lodge
June 2, 1990 Rapid City, SD

The meeting was called to order at 10:00 am, by James Reynolds, MD, Speaker of the House. Those present for roll call were Doctors Warren Redmond, James Hovland, Curtis Wait, Phillip Hoffsten, Jeffrey Hagen, Rodney Parry, Dennis Johnson, Guy Tam, C. Roger Stoltz, Robert Raszkowski, Duane Reaney, James Engelbrecht, Ed James, James Jackson, Carol Zielike, Thomas Krafka, Mary Carpenter, Ben Chaska, Thomas Luzier, Calvin Roseth, Richard Holm, Gary Bruning, Howard Saylor, Richard Smith, Richard Gere, Lucio Margallo, Robert Talley, James Ryan, Charley Gutch, William Rossing, John Barker, Robert VanDemark, Jr., Stephen Billion, John Billion, Daniel Kennelly, David Elson, Theodore H. Sattler, Larry Meyer, Julie Stevens, Robert Ferrell, Cynthia Weaver, Robert Goodhope, Russell Harris, Stephen Haas, John Barlow, James Rud, Nathaniel Whitney, O. Myron Jerde, Reuben Bareis, Ed Sweet and David Yecha. A quorum was present and the meeting was declared competent to proceed.

A motion was made to dispense with the reading of the minutes of the previous meeting inasmuch as they will be published and distributed. The motion was seconded and carried.

Dr Engelbrecht read the report of the Nominating Committee.

REPORT OF THE NOMINATING COMMITTEE

The Nominating Committee submits the following recommendations for the consideration of the House of Delegates:

OFFICERS:

President-ElectRichard Porter, MD
Vice President George Thompson, DO
AMA Delegate Durward Lang, MD
AMA Alternate Delegate Robert Ferrell, MD
Speaker of the HouseJames Reynolds, MD

COUNCILORS - 3 year terms:

Aberdeen District #1 Warren Redmond, MD
Brookings/Madison District #3 Curtis Wait, MD
Huron District #5 Stephan Schroeder, MD
Mitchell District #6 Walter Baas, MD
Sioux Falls District #7Jeffrey Hagen, MD
.....Lowell Hyland,MD
Black Hills District #9 Carol Zielike, MD

ALTERNATE COUNCILORS - 3 year terms:

Aberdeen District #1 David Seaman, MD
Brookings/Madison District #3 Richard Holm, MD
Huron District #5 Jeffrey Hanson,MD

Mitchell District #6Lucio Margallo, MD
Sioux Falls District #7 Dennis Johnson, MD
..... D.G. Ortmeier, MD
Black Hills District #9John Barlow, MD

ANNUAL MEETING SITE

1991 - Sioux Falls, SD, June 6-8, 1991

1992 - Rapid City, SD, June 4-6, 1992

1993 - Sioux Falls, SD, June 9-12, 1993

Respectfully submitted,
NOMINATING COMMITTEE
James Engelbrecht, MD, Chairman
Jerome Eckrich, MD
Marlin Lamb, MD
Curtis Wait, MD
Walter Baas, MD
Guy Tam, MD
Ed Sweet, MD
David Yecha, MD
Ben Chaska, MD

There being no nominations from the floor, a motion was made that the report of the Nominating Committee be approved. The motion was seconded and carried.

Dr. Jerald Schenken, MD, of the American Medical Association Board of Trustees, spoke to the House of Delegates concerning problems faced in rural health and the British or Canadian alternative systems of health care. Dr. Schenken also emphasized the importance of medical student involvement.

Dr. Goodhope read the Report of the Reference Committee on Credentials, Resolutions and Memorials and Reports of Officers and Councilors.

REPORT OF THE REFERENCE COMMITTEE ON CREDENTIALS, RESOLUTIONS AND MEMORIALS AND REPORTS OF OFFICERS AND COUNCILORS

The following delegates, alternate delegates, officers and councilors of the South Dakota State Medical Association were present: Doctors Michael Pekas, Jerome Eckrich, Richard Porter, M. George Thompson, James Reynolds, Bruce Lushbough, Durward Lang, Frank Messner, James Hovland, James Larson, Curtis Wait, Stephan Schroeder, Dennis Johnson, Jeffrey Hagen, Rodney Parry, Larry Finney, David Smith, James Engelbrecht, Thomas Krafka, Guy Tam, C. Roger Stoltz, Robert Raszkowski, Duane Reaney, Carol Zielike, Steve Haas, James Jackson, Richard Renka, Mary Carpenter, Ben Chaska, Thomas Luzier, Marlin Lamb, Gerald Tracy, Calvin Roseth, Richard Holm, Noel Chicoine, Tom Huber, Gary Bruning, Richard Smith, Howard Saylor, Richard Gere, Walter Baas, Lucio Margallo, Robert Talley, D.G. Ortmeier, James Ryan, Charley Gutch, William Rossing, Russell Orr, John Barker, Robert VanDemark Jr, Stephen Billion, John Billion, Daniel Kennelly, Theodore H. Sattler, Julie Stevens, Robert Ferrell, Craig Hansen, Cynthia Weaver, Robert Goodhope, Russell Harris, John Barlow, James Rud, David Yecha, Nathaniel Whitney, O. Myron Jerde and Ed Sweet.

A quorum was present for the House of Delegates. Total registration for the convention is 206, including 103 physicians, 2 guests, 47 Auxiliary members and 54 sponsoring companies.

The Reference Committee reviewed the reports of the officers and councilors and recommends they be accepted as submitted.

The committee submits the following resolution for the consideration of the House of Delegates:

WHEREAS, the Black Hills District Medical Society, the Black Hills District Medical Auxiliary, the Watertown District Medical Auxiliary, the Pierre District Medical Auxiliary and the Northwest District Medical Auxiliary have made excellent arrangements for the success of this Annual Meeting

BE IT RESOLVED, that the South Dakota State Medical Association express its appreciation and thanks to the local physicians in the Black Hills District and the members of the Black Hills District Medical Auxiliary, the Watertown District Medical Auxiliary, the Pierre District Medical Auxiliary and the Northwest District Medical Auxiliary.

WHEREAS, the management of the Howard Johnson Motor Lodge and the Arrowhead Country Club have been most cooperative in providing facilities for the Annual Meeting and the Auxiliary luncheon,

BE IT RESOLVED, that the South Dakota State Medical Association extend its thanks and appreciation to the Howard Johnson Motor Lodge and the Arrowhead Country Club.

WHEREAS, the Rapid City Journal, KOTA TV and radioKIMM, KSQY and KKLS have been most cooperative in presenting the public news of the annual meeting,

BE IT RESOLVED, that the South Dakota State Medical Association thank the Rapid City Journal, KOTA TV and radio, KIMM, KSQY and KKLS.

WHEREAS, Meadowbrook Golf Club and the Rapid City Trap Club have been most cooperative in providing facilities for the golf tournament and the trap shoot,

BE IT RESOLVED, that the South Dakota State Medical Association extend thanks to Meadowbrook Golf Club and the Rapid City Trap Club.

WHEREAS, the sponsoring companies have contributed a great deal towards the success of this annual meeting.

BE IT RESOLVED, that the South Dakota State Medical Association thank the sponsoring companies for their support and participation.

BE IT RESOLVED, that \$100 be donated to the South Dakota Medical School Endowment Association in memory of each of the following physicians who died during the past year:

Alton J. Saxton, MD
Maurice Rousseau, MD
John S. Devick, MD
Elven T. Plowman, MD
Samuel Bandiera, MD
Paul Boom, Jr, MD
Leonard Tobin, MD
Warren Anderson, MD
Jose Villa, MD

The Reference Committee considered the Resolution on Financing a Long Range Public Relations Program for Physicians and recommended the following amendment to Resolution #4.

THEREFORE BE IT RESOLVED, that the House of Delegates authorize the Council to commit an initial funding amount of \$15,000 to establish a basic plan for long range public relations and education program. The SDSMA President, Chairman of the Council and Speaker of the House will report to the House on its progress.

Respectfully submitted,
REFERENCE COMMITTEE ON CREDENTIALS,
RESOLUTIONS AND REPORTS OF OFFICERS AND
COUNCILORS

Robert Goodhope, MD, Chairman
John Barlow, MD
Charley Gutch, MD
John Billion, MD
Cynthia Weaver, MD

A motion was made to accept the report of the Reference Committee on Credentials, Resolutions and Memorials and Reports of Officers and Councilors. The motion was seconded and carried.

Dr. Stephen Haas read the report of the Reference Committee on Reports of the Commission on Medical Service and the Commission on Legislation and Governmental Relations.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF THE COMMISSION ON MEDICAL SERVICE AND THE COMMISSION ON LEGISLATION AND GOVERNMENTAL RELATIONS

The Reference Committee reviewed the report of the Commission on Legislation and Governmental Relations. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed the report of the Commission on Medical Service. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed and recommended adoption of Resolution #3, "Medicare Proposal for Patterns of Care".

Respectfully submitted,
REFERENCE COMMITTEE ON REPORTS OF THE
COMMISSION ON MEDICAL SERVICE AND THE
COMMISSION ON LEGISLATION AND
GOVERNMENTAL RELATIONS

Stephen Haas, MD, Chairman
Robert Talley, MD
Howard Saylor, MD
Stephen Billion, MD
Dennis Johnson, MD
Gary Bruning, DO
and others providing information --
Myron Jerde, MD,
Nathaniel Whitney, MD
Daniel Kennelly, MD

A motion was made to accept the report of the Reference Committee on Reports of the Commission on Medical Ser-

vice and the Commission on Legislation and Governmental Relations. The motion was seconded and carried.

Dr. Richard Holm read the Report of the Reference Committee on Reports of the Commission on Scientific Medicine, Internal Affairs Communications and Liaison and Professional Liability.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF THE COMMISSION ON SCIENTIFIC MEDICINE, INTERNAL AFFAIRS, COMMUNICATIONS AND LIAISON AND PROFESSIONAL LIABILITY

The Reference Committee reviewed the report of the Commission on Scientific Medicine. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed the report of the Commission on Internal Affairs, Communications and Liaison. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed the Health Career Grant Fund Financial Report. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed the proposed budget for the fiscal year 1990-91, with further discussion on individual salaries. The Reference Committee recommends acceptance of the budget.

The Reference Committee reviewed the report of the Commission on Professional Liability. The Reference Committee recommends acceptance of this report.

The Reference Committee reviewed Resolution #4, concerning the marketing of Dakota Cigarettes. The Reference Committee recommends acceptance of this Resolution.

The Reference Committee reviewed Bylaw Amendment #1, concerning dues for Associate Members. The Reference Committee recommends acceptance of this bylaw amendment.

The Reference Committee reviewed Resolution #5, concerning South Dakota's Transportation and Communication Systems and Their Effect on the Delivery of Health Care Services in Our Rural Communities. The Reference Committee recommends acceptance of this resolution.

The Reference Committee reviewed Resolution #6, concerning Commendations to Governor George Mickelson for His Leadership in Working to Define the Rural Health Care Issues Affecting South Dakota. The Reference Committee recommends acceptance of this Resolution.

Respectfully Submitted,

**REFERENCE COMMITTEE ON REPORTS OF THE
COMMISSION ON SCIENTIFIC MEDICINE, INTER-
NAL AFFAIRS, COMMUNICATIONS AND LIAISON,
AND PROFESSIONAL LIABILITY**

Richard Holm, MD, Chairman

John Barker, MD

Thomas Luzier, MD

Richard Smith, DO

Russell Orr, MD

Robert Van Demark, Jr., MD

Julie Stevens, MD

Robert Ferrell, MD

Russell Harris, MD

A motion was made to accept the report of the Reference

Committee on Reports of the Commission on Scientific Medicine; Internal Affairs, Communications and Liaison; and Professional Liability. The motion was seconded and carried.

Dr. James Ryan read the report of the Reference Committee on Reports of Special Committees and Miscellaneous Business.

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF SPECIAL COMMITTEES AND MISCELLANEOUS BUSINESS

The Reference Committee has reviewed and recommends acceptance of reports from the Committee for Continuing Medical Education, the Budget and Audit Committee, the ShareCare Committee, the Grievance Commission, the South Dakota Political Action Committee, the Board of Directors of the South Dakota Medical School Endowment Association, the Physicians HELP Committee, the Medical-Legal Committee, the Archives and History Commission, the AIDS Task Force and the Special Medicare Committee.

The Reference Committee reviewed Resolution #1. A discussion ensued concerning the value of AMA membership. It was the consensus of the reference committee that AMA membership should be encouraged; however, concern was expressed as it relates to mandatory unified membership. With this in mind the reference committee recommends adopting the following resolution as amended:

RESOLUTION #1

TO: House of Delegates
South Dakota State Medical Association
FROM: Council
South Dakota State Medical Association
SUBJECT: Educational Program to Increase Membership
in AMA --~~Unification~~
RESOLVED:the South Dakota State Medical Association undertake an educational program to increase membership in the American Medical Association by practicing physicians, students and residents in training(.) ~~with the purpose of achieving unification by 1995.~~

() = additions

---- = deletions

The Reference Committee reviewed Resolution #7 establishing a Committee on Aging of the State Medical Association. The Reference Committee recommends that Resolution #7 not be adopted but that this matter be referred to the Special Medicare Committee for review of its mission statement and its membership to determine if there is a need for expansion.

Respectfully submitted,

**REFERENCE COMMITTEE ON REPORTS OF SPE-
CIAL COMMITTEES AND MISCELLANEOUS
BUSINESS**

James Ryan, MD, Chairman

Richard Gere, MD

Carol Zielike, MD

James Rud, MD

and others providing information --

David Smith, MD

James Reynolds, MD

A motion was made to accept the report of the Reference Committee on Reports of Special Committees and Miscel-

laneous Business. The motion was seconded and carried.

Dr. Jerome Eckrich was installed as president of the South Dakota State Medical Association and briefly addressed the House of Delegates. The presidential address was followed by introduction of the new officers.

Robert Johnson announced the results of the 5K run, the trap shoot and golf tournament held Thursday, May 31.

There being no further business, the meeting adjourned at 10:55 am.

PRESIDENTIAL OATH OF OFFICE

I SOLEMNLY SWEAR THAT I shall carry out the duties of the President of the South Dakota State Medical Association to the best of my ability. I shall strive constantly to maintain the ethics of the medical profession and to promote the public health and welfare. I shall dedicate myself and my office to improving health standards and to the task of bringing increasingly improved medical care to the people of South Dakota. I shall uphold the Constitution and Bylaws of the AMA and the South Dakota State Medical Association. I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans.

I do solemnly swear that I will discharge the duties of this office to the best of my ability, so help me God.

**REPORT OF THE PRESIDENT AND CHAIRMAN
OF THE EXECUTIVE COMMISSION**

It has been a distinct privilege to serve you as president of your State Medical Association during 1989-1990. During this past year, I attended and participated in all of the Executive Commission and Council meetings and again was impressed with the diligence and effort put forth by members of these governing bodies and the wide variety of questions and problems that these bodies deal with.

Along with the AMA delegate, Bruce Lushbough; alternate delegate, Durward Lang; and executive secretary, Bob Johnson, I attended and participated in the annual and interim AMA meetings. Again, I was struck by the effectiveness of the North Central Conference and its ability to deal with the AMA on a national level and was again impressed by the democratic way in which the AMA meetings are held with involvement of not only state delegations but delegations from young physicians, residents, students,

speciality societies and governmental agencies. South Dakota is indeed well represented on a national level through the system of organized medicine.

As president, I accompanied Bob Johnson and the president of the State Medical Association Auxiliary, my wife Karen, to all of the districts and found these very enjoyable and interesting in that each district seemed to have different problems and primary concerns. The exchange of information, which occurred at these meetings was beneficial for all and once again underlines extreme importance of a strong grass roots organization at the district level, which strengthens our State Medical Association.

The State Medical Association Auxiliary, under the leadership of my wife Karen, had a tremendous year both with maintaining membership and fund raising for AMA/ERF. This able organization truly deserves our gratitude for their continued support of our efforts and for the valuable projects on behalf of youth that they are so deeply involved in.

I feel good about our organization and I feel that the importance of organized medicine is going to continue to increase as our country strives to deal with the serious and varied health care problems that it faces.

I am especially grateful to the effective professional staff at the offices of the State Medical Association, especially Mr. Robert Johnson, Mrs. Jan Anderson, and Mr. Lorin Pankratz, who besides being good friends were invaluable counselors. Without the aid of these devoted individuals at the State Medical Association office, the job of president of the State Medical Association would be an impossible task.

Again, I thank you for the opportunity of serving as your president and leave this office full of gratitude to you all for a job well done.

Respectfully submitted,
Michael W. Pekas, M.D.
President and Chairman
Executive Commission

The Reference Committee reviewed the report of the President and Chairman of the Executive Commission and recommended it be accepted as submitted.

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REPORT OF THE PRESIDENT ELECT

As President Elect, I have attended all of the Council meetings of the South Dakota State Medical Association and the Executive Commission. I also attended the interim AMA meeting in December and the AMA leadership meeting in Phoenix, Arizona, in March, 1990. It is apparent that the structure of the American healthcare delivery system is in a state of rapid change at this time, and we as physicians will be challenged by the changing socioeconomic and political climate over the next several years as we have never been challenged before. I would also like to congratulate the President of the State Medical Association, Dr. Michale Pekas, Mr. Robert Johnson, Chief Executive Officer, and the entire staff of the State Medical Association for an outstanding and productive year. I am looking forward with enthusiasm to the next year as President of the State Medical Association and will make every effort as President to serve the membership of our organization. I would also like to take this opportunity to thank the membership of the State Medical Association for allowing me to serve in the office of President Elect. and political climate over the next several years as we have never been challenged before. I would also like to congratulate the President of the State Medical Association, Dr. Michael Pekas, Mr. Robert Johnson, Chief Executive

Respectfully submitted,
J. A. Eckrich, MD
President Elect

The Reference Committee reviewed the report of the President Elect and recommended it be accepted as submitted.

REPORT OF THE VICE PRESIDENT

It has been a privilege to serve as your Vice President for the year just past, and I will report to you that it has, indeed, been a busy year!

I was able to attend all but one of the Council meetings, and also the Executive Commission retreat in Minnesota. We also attended the North Central Conference held in November of 1989, in Minneapolis, Minnesota.

I again would like to thank all of you for the privilege of serving as your Vice President over the past year.

Respectfully submitted,
Richard I. Porter, MD
Vice President

The Reference Committee reviewed the report of the Vice President and recommended it be accepted as submitted

REPORT OF THE SECRETARY-TREASURER

Reports this year usually start with something about the decade of the '90's. Whether it is a warning, promise of a new start or advice on how to proceed, it is as important to organized medicine as it is to any other entity. Your Executive Board and Council continues to be ever-vigilant in trying to save independent medical practice. It seems we are being attacked on all sides by government, insurance companies and, yes, hospital boards and associations.

The only way to keep what we have and try to improve is to take a more active interest in our medical association and societies and on hospital committees. This board member

will continue to do so as long as you desire.

Respectfully submitted,
M. George Thompson, D.O.
Secretary-Treasurer

The Reference Committee reviewed the report of the Secretary-Treasurer and recommended it be accepted as submitted

REPORT OF THE CHAIRMAN OF THE COUNCIL

It has been my privilege to be Chairman of the Council for the past year. My good friend and sometimes advisor, Dr. Robert Ferrell, encouraged me by assuring me that Chairman of the Council was the best office in the South Dakota State Medical Association and he was right. I am enjoying the personal challenge and intellectual stimulation.

The first Council meeting was held June 7, 1989.

1. The Council received the report of the ad hoc committee on Medicaid reimbursement and selected one of the options presented to be recommended to the Department of Social Services.

2. Received Dr. Helenboldt's presentation regarding medical patterns of care.

3. Approved a resolution to oppose expenditure targets.

4. Received a report from Dr. Engelbrecht of District 9 regarding possible suit against North Dakota Blue Cross-Blue Shield and HCFA regarding Medicare claims and medical unnecessary letters. The legal opinion obtained was that most of this type of lawsuits are dismissed without even going to trial and we probably would not be successful if we attempted such a lawsuit.

5. Increased annual auxiliary funding from \$2,000 to \$5 per South Dakota State Medical Association member.

6. Elected SoDaPAC Board of Directors: Robert Goodhope, M.D., John Barlow, M.D., Curtis Buchholz, M.D., Lori Marty, Thomas White, M.D., and Loyd Wagner, M.D.

7. Elected Bill Jones, M.D., Byford Anderson, M.D., James Yackley, M.D., and Richard Stewart, M.D., to honorary life membership.

8. Discussed unified membership and voted to forward it to the 1990 House of Delegates meeting.

9. Recommended Dr. Bartron for reappointment to the Board of Medical Examiners.

The second Council meeting was held June 10, 1989.

1. The Council seated the following new Councilors: Philip Hoffsten, M.D., District 4; Stephan Schroeder, M.D., District 5; Rod Parry, M.D., District 7; Robert Razkowski, M.D., District 7; Duane Reaney, M.D., District 8; and David Smith, M.D., District 8.

2. Elected Dr. Kafka, Chairman of the Council.

3. Approved funding to send a young physician representative to AMA annual and interim meetings.

The third Council meeting was held September 22, 1989.

1. The Council directed that a resolution asking the AMA to study the efficiency and cost effectiveness of JCAHO quality assurance standards be forwarded to the North Central Medical Conference.

2. Decided the format for the 1990 annual meeting.

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3. Council accepted the recommendations of the SHARECARE Committee to increase promotion of SHARECARE and to process applications at the South Dakota State Medical Association office.

4. Agreed that the South Dakota State Medical Association should support HR-3102 which basically states that AIDS be reported in a manner similar to other communicable diseases.

5. Approved resolution to North Dakota Blue Cross-Blue Shield rejecting medical patterns of care for use as it may endanger the lives and well-being of South Dakota Medicare beneficiaries.

6. Approved sending a letter to HCFA recommending wording changes in Medicare EOMB forms.

7. Approved the report of the Family Practice Task Force with option 2B.1 which states that faculty would be employed by the University of South Dakota School of Medicine and teaching services for resident education be purchased by the Family Practice Center from USDSM by contract.

8. Approved Bryson McHardy, M.D., Don Fedt, M.D., E. A. Schabauer, M.D., John Argabrite, M.D., John Christopher, M.D., and Alvin Voegelé, M.D., for honorary life membership.

9. Approved acquiring additional office space by expanding the existing building for approximately \$200,000.

10. Nominated Robert D. Johnson for distinguished service award. Mr. Johnson requested that his name be withdrawn from consideration.

The fourth Council meeting was held November 17, 1989.

1. The Council voted to oppose all mandated health care benefits.

2. Approved ad hoc committee to address Health Care Consent Act.

3. Voted to support proposed changes in the Physician Assistants Practice Act.

4. Voted to oppose temporary licensing of physicians' assistants.

5. Approved recommendations of Family Practice Residency Task Force.

6. Members of the Council expressed displeasure about medical patterns of care to representatives of North Dakota Blue Cross-Blue Shield and HCFA who were present at the meeting.

7. Listened to Dr. Russ Harris and Dr. Howard Saylor concerning some aberrant billing practices of a few South Dakota physicians.

8. Nominated Molly King for the Governor's Award for Disabled Persons.

9. Elected Edward Daw, M.D., to honorary life membership.

10. Approved for submission to the House of Delegates a bylaw amendment which ends the exemption from dues that associate members have enjoyed.

The fifth Council meeting was held March 30, 1990.

1. The Council welcomed Dr. Sandra VanGerpen, the new medical director of the Department of Health.

2. Approved 1990-91 budget.

3. Directed that a specific plan for maternal mortality

surveillance possibly involving the Foundation be developed, a legal opinion on its immunity from discovery be obtained and this information presented at the June Council meeting.

4. Drafted a resolution to increase AMA membership by increased education to practicing physicians, residents, and students with the object of unified membership in 1995.

5. Directed staff to attempt to purchase Brzica building and allowing staff to negotiate terms.

6. Elected Charles Swanson, M.D., and Robert Quinn, M.D. to honorary life membership.

7. Appointed Joseph Hamm, M.D., Warren Jones, M.D., Howard Saylor, M.D., Bruce Lushbough, M.D., T. H. Sattler, M.D., Robert Giebink, M.D., and Bruce Allen, M.D., to the Board of Directors of South Dakota Medical School Endowment Association.

8. Referred long term public relations program to Commission on Internal Affairs.

9. Held election for the Distinguished Service Award and Community Service Award (results to be announced at annual meeting).

10. Nominated Myron Jerde, M.D., and John Gregg, M.D. for C. B. Alford Award.

It has been a year filled with new, controversial topics and some old ones making it difficult to adjourn Council meetings on time. Issues such as mandated benefits, patterns of care, unified membership, and long term public relations will follow us well into the 90's and threaten to prolong meeting agendas for some time to come.

My personal thanks to the SDSMA staff, especially Jan Anderson and Bob Johnson without whom it would be more apparent I didn't know what I was doing. Special thanks to Woody Lang and Bruce Lushbough for their encouragement and their confidence in me.

Respectfully submitted,
Thomas L. Krafka, M.D.
Chairman of the Council

The Reference Committee reviewed the report of the Chairman of the Council and recommended it be accepted as submitted.

REPORT OF THE AMA DELEGATE

I have had the privilege of serving as your delegate to the American Medical Association House of Delegates during the past year. Meetings were held in Chicago June, 1989, and in Honolulu December, 1989.

My report will focus on the December meeting because of the need for the delegates to spend considerable time trying to resolve concerns surrounding financial decisions that AMA CEO James Sammons had made in 1985 and 1987. This controversy began after a Chicago newspaper published an article in October, 1989, expressing concern about some internal financial decisions that Sammons had made without the apparent knowledge of the AMA Board of Trustees. Following the news release the controversy continued until the December meeting.

A hearing during the December meeting was held to give some information to the delegates. However, the Board of Trustees requested that the details not be made public until an outside accounting firm had made a complete investigation and filed a report with them. The House of Delegates honored this request and also reduced Dr. Sammons' finan-

cial authority and created special committees of the Trustees making them more accountable for the actions of the full-time AMA staff. Dr. Sammons apologized to the House of Delegates for the admitted errors he had made. It is important to note that the detailed information was not discussed during the hearing nor in any way shared with members of the House of Delegates. In retrospect I believe that several state delegations including the Illinois delegation knew more than "the rest of us" and entered strong resolutions for additional action. These resolutions were not accepted by the House of Delegates after strong objection by AMA Trustees and AMA officers. The plea was to wait for the outside investigation to be completed and the delegates agreed.

Following the December House of Delegates meeting, additional information was made public by the same Chicago newspaper indicating additional financial decisions by CEO Sammons made with full knowledge of the Board of Trustees. These more recent transactions created a storm of controversy resulting in Sammons' immediate resignation effective February 9, 1990. James S. Todd, MD, Sammons' assistant, became acting CEO until a new AMA executive vice president can be named later this year.

There will be more information available to delegates at the June, 1990 meeting in Chicago. Until then we must assume that the AMA Board of Trustees and AMA officers and officials are providing the necessary leadership to ensure that the AMA can continue to represent all of medicine when medical education and patient care issues surface during the next decade.

The detailed report of actions at both House of Delegates meetings have been submitted to you previously. I do not want you to think that no other action took place at the interim meeting. I will not report further on those actions at this time.

We need to be enthusiastic about the role that the SDSMA and the AMA has now and will have in the future as the environment for healthcare delivery and the practice of medicine continues to change in the country. I realize that the 1990s will be a decade of opportunity for us as physicians. Let us all remember why we were challenged to become doctors - to serve others in a very special way. Then let us do that! Let us also remember why we were challenged to join organized medicine - to serve in a professional organization to guarantee that those who follow us will be blessed with access to the finest healthcare. Then let us do that!

Respectfully submitted,
Bruce Lushbough, MD
AMA Delegate

The Reference Committee reviewed the report of the AMA Delegate and recommended it be accepted as submitted.

REPORT OF THE AMA ALTERNATE DELEGATE

As your Alternate Delegate to the AMA, I attended the annual meeting of the South Dakota Medical Association and the annual meeting of the AMA in Chicago in June, 1989, as well as the Interim meeting of the AMA in Honolulu. I also attended most of the Council meetings and the Executive Commission meetings. At both the annual meeting and

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Roy G. Burt, MD, Vice President

Jerry L. Simmons, MD, Secretary-Treasurer



the interim meeting, the main topic of discussion was the Resource Based Relative Value Study. We have communicated with the membership with regard to this most important topic, and we hope we will have additional information for the membership at the time of the annual meeting in June of 1990.

The AMA did well in Congress. Expenditure targets were defeated. Many of the AMA members helped. Our Washington staff and the AMA leadership did an excellent job.

RB-RVS will be phased in over a five year period starting in 1992. Balance billing will be more fair. MAACs will be modified. Several proposals by Representative Fortney Stark (D-Calif.) that were as usual, hostile to the medical profession were defeated. Volume Performance Standards (VPS) were adopted by Congress. These will be adjusted by HHS for specialty, geographic area and type of service.

The amount of government interference, state and national, continues to increase. People talk about high incomes and extravagant lifestyles, and big bills from physicians. Politicians have perceived this. We're getting beat up in the legislative arena. Knowledgeable people say that in 5 - 10 years we will have a socialized system because of high charges. I hope not.

Respectfully submitted,
Durward M. Lang, MD
AMA Alternate Delegate

The Reference Committee reviewed the report of the AMA Alternate Delegate and recommended it be accepted as submitted.

REPORT OF THE SPEAKER OF THE HOUSE

The House of Delegates will meet this year at the annual meeting of the South Dakota State Medical Association to be held May 31, June 1 and 2 in Rapid City, South Dakota. The House of Delegates traditionally plays a vital role in the functioning of the State Medical Association. Resolutions from the District Medical Societies as well as individuals will be introduced at the time of the state meeting. The main functioning unit of the House of Delegates are the reference committees. Members of the House of Delegates this year will be assigned to one of the reference committees.

I would encourage all medical districts to submit resolutions for consideration at this year's House of Delegates. I would like to thank, in advance, the Chairman of each of the reference committees and the Delegates participating in the reference committees.

Respectfully submitted,
James R. Reynolds, MD
Speaker of the House

The Reference Committee reviewed the report of the Speaker of the House and recommended it be accepted as submitted.

REPORT OF THE COUNCILOR AT LARGE

As Councilor at Large, I have attended meetings of the Council, Executive Commission and House of Delegates. I have enjoyed my continued association with the South Dakota State Medical Association and have been grateful for the opportunity to belong and serve this organization both as a member and an officer. I feel the organization is very strong and doing quite well with excellent leadership. Although my term as an officer in the association has now ended, I will continue to follow and participate in proceedings and events of the South Dakota State Medical

Association. I am grateful for the help and support that has been given me over these past several years.

Respectfully submitted,
Frank Messner, M.D.
Councilor at Large

The Reference Committee reviewed the report of the Councilor at Large and recommended it be accepted as submitted.

REPORT OF THE CHIEF EXECUTIVE OFFICER

Dr. Pekas and I have had the distinct privilege of visiting all twelve district medical societies during this past year. As always, the hospitality and comradery extended by each district has been exceptional.

Many of the districts should be commended for their efforts in developing truly meaningful programs for their members. Many are also using the district meeting as a format to enhance legislative contacts and provide substantive input to our elected representatives. The only disappointing comment about the district medical visits is that a relatively small number of physicians are taking advantage of these outstanding programs.

Some might view the decade of the '80s as a decade that fostered the greatest number of changes that the medical community has ever seen. However, it appears that the '90s will continue to challenge us all as we are forced to deal with limited resources, federal deficits, RBRVSs, patterns of care, practice parameters, and 37 million underinsured. At a recent conference, one of the speakers addressing political involvement stated there are two types of people in the American political scene. They are: 1) the players (those who are actively involved), and 2) the victims (those who receive the result of the process). It seems as though every one of us is faced with more meetings, more pressures, and more obligations then imaginable. Even in the face of all these responsibilities, we must make a commitment to be a player and not a victim.

Your involvement in organized medicine at all levels is essential. With 1990 being an election year, it would be inappropriate if I did not mention the involvement of many physicians and members of the medical family. In South Dakota we are particularly blessed with three physicians who have accepted the challenge of public service and are now running for re-election. They are William R. Taylor, MD, Richard Belatti, MD, and Wenzel Kovarik, MD. In the 1990 election, for the first time a representative of the Association staff, Lorin Pankratz, will throw his hat into the ring and run for a seat in the South Dakota Senate. There are a number of other candidates within the family of medicine who have also accepted this challenge. They are Jim Dunn, Director, South Dakota Blue Shield; Don Ham, Director, South Dakota Blue Shield; Mike Wagner, son of Dr. Loyd Wagner; Kevin Loge, South Dakota Blue Shield staff; and Bill Sandness, staff of South Dakota Hospital Association. I wish them the best of luck and commend them for their dedication to public service and the commitment they have made to all South Dakotans.

During this past year, Governor Mickelson and his administration have worked cooperatively with the Medical Association and our committees, commissions, and council to help improve health care for all South Dakotans. The Governor has keynoted health as one of his priorities which must be addressed in the coming years. He and his administrative staff have sought our advice, and help, and fully

realize the magnitude of the challenge before them. We need your help as individual members of the Association in order to meet this challenge and help set the stage for improvement in health care in South Dakota during the 1990s.

I would truly be remiss if I did not extend to all of the officers, councilors, commission members, and members of ad hoc committees a heartfelt thanks. They continue to give freely of their time to the many tasks that have been given to them. Be assured many of the problems which they have confronted are extraordinarily sensitive and difficult to deal with; yet without hesitation, they have met the challenge.

1989-1990 is unique for yet another reason. The medical family was blessed by having both Mike and Karen Pekas as your President of the Medical Association and President of the Auxiliary. Mike and his lovely wife, Karen, exemplify the commitment that medical families make to the people they serve and have done so in such a fashion as to make us all proud. Our hats are off to both President Pekas'.

Respectfully submitted,
Robert D. Johnson
Chief Executive Officer

The Reference Committee reviewed the report of the Chief Executive Officer and recommended it be accepted as submitted.

REPORT OF THE SECOND DISTRICT COUNCILOR

The Watertown District Medical Society met in the nine month period from September to May 1989, and 1990, per our usual custom. Topics of meetings reflected the current concerns of the district with regard to issues which affect medicine on the local and state as well as national levels, and supplemented by socioeconomic topics that currently affect medicine.

We began in September by hosting our spouses at our annual combined District Medical Society and Auxiliary function at the Watertown Country Club. In October we were pleased to have a presentation by Virginia Paulson of the St. Paul Fire and Marine Insurance Company on risk management both in practice and in hospitals. In November 1989, Mr. Joe Reif, a representative of Upjohn Pharmaceutical, gave a program in which he discussed research marketing and the cost of medicine in today's market. In December 1989, we were pleased to be host to our area legislators including Dale Howlett, Dorothy Kellogg, Harold Halverson, Robert Weber, and Loren Christianson. A lively discussion of topics which would be presented before the legislature and which affected medicine was discussed and enjoyed by all, and we were pleased to present the views of the Watertown District Medical Society on many of these issues.

January 1990, brought our annual visitation by the President of the South Dakota Medical Association, Michael Pekas, MD, as well as Mr. Robert Johnson, Secretary of the Medical Association. In February, we were to have a presentation from the Prairie Lakes Health Care System Physiotherapy and Occupational Therapy Department on new programs in development which would affect the care of patients with low back pain and other physical ailments. At the March 1990 meeting we listened to a presentation by Charter Hospital of Sioux Falls on outreach programs available to the residents of northeast South Dakota under their Outpatient and Outreach Programs. In April we were pleased to entertain Mr. Don Wegmiller, the former President of the American Hospital Association and currently the Chief Executive Officer of HealthOne Systems of Min-

neapolis, who gave us an overview on what medicine in the 90's would probably be like with regard to both hospital and physician practices. In May, we anticipate instructing our delegates to the South Dakota State Medical Association with regard to issues which will be discussed during the House of Delegates meeting.

Respectfully submitted,
James C. Larson, MD
Second District Councilor

The Reference Committee reviewed the report of the Councilor from the Second District Medical Society and recommended it be accepted as submitted.

REPORT OF THE THIRD DISTRICT COUNCILOR

The Third District has continued its meetings on a regular basis during 1989. The meeting in August of 1989, was held in Brookings. Dr. Howard Pomeroy was accepted to the medical society. Dr. Bryson McHardy was retired from active practice and we passed along a motion for honorary life membership to the State Medical Society. The October meeting was held with Dr. Kitowski, our radiologist, being accepted to the membership. The annual presidential visit by Dr. Michael Pekas and Bob Johnson occurred and they were welcomed. The meeting on December 7 was held at the Flandreau Indian School. Unified membership of the AMA was discussed. Dues remained the same. Doctor for the Day Program was organized. The following officers were elected unanimously: Robert Rietz, M.D., President; Richard Sample, M.D., Vice President; and Howard Pomeroy, M.D., Secretary. The meeting of February 15, 1990, was held in Brookings. Stephan Helgaas, M.D., was received

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into the society. A program of interest was presented by our orthopedic surgeon. Dr. Curtis Wait and Dr. Richard Holm were nominated as Councilor and Alternate Councilor for the new year.

Respectfully submitted,
Curtis H. Wait, M.D.
Third District Councilor

The Reference Committee reviewed the report of the Councilor from the Third District Medical Society and recommended it be accepted as submitted

REPORT OF THE FOURTH DISTRICT COUNCILOR

The Fourth District Medical Association held their annual meeting in January, 1990.

The business portion of the meeting consisted of re-election of the officers from the previous year. Dr. Stephen Stout remained president. Dr. Thomas Huber remained secretary. Dr. Phillip Hoffsten remained the councilor from the Fourth District with Dr. Huber being elected the alternate councilor. Dr. Stephen Stout and Dr. Mark Werpy were elected delegates to the State Medical Association as before. Dr. Raymond Zakahi and Dr. Huber are the alternates.

Dr. Michael Pekas, Robert Johnson and Lorin Pankratz were present for the Fourth Medical Association meeting in January, 1990. Each made presentation and then discussion followed. Issues regarding DAKOTACARE elicited extensive discussion.

The Fourth District Medical Association in conjunction with the Continuing Education Department at St. Mary's Hospital sponsored the following CME programs:

January, 1989	"Silent Ischemia", by Dr. Purdy and Dr. Jackson
March, 1989	"Update on Peptic Ulcer", Dr. Bochna
September, 1989	"Sleep Disorders", by Dr. Kelts
November, 1989	"Antibiotic Usage in the DRG era", by J. Scherrer

Members of the Fourth District Medical Society were saddened by the death of Dr. Paul Boom who passed away from myocardial infarct in the past year. Dr. Boom was a well respected member of our medical community and will be missed.

Dr. Charles Swanson retired in October, 1989, and was nominated for Honorary Life Membership at the Fourth District Meeting.

The Fourth District is very pleased to have added two new physicians in the past year - Dr. Eldon Becker, General Surgeon, joined Medical Associates Clinic in July, 1989, and Dr. Brent Lindbloom, OB-GYN, joined Medical Associates Clinic in August, 1989. Both are welcome additions to our hospital staff.

Respectfully submitted,
P. E. Hoffsten, MD
Fourth District Councilor

The Reference Committee reviewed the report of the Councilor from the Fourth District Medical Society and recommended it be accepted as submitted.

REPORT OF THE FIFTH DISTRICT COUNCILOR

The death last spring of long time Fifth District Councilor

David Buchanan, M.D., silenced an effective and articulate spokesman for medicine in our state. His wit and wisdom will be missed by our district as well as the entire association.

New district members in Huron include Dr. Scott Gale, Dr. Jim Craig, and Dr. Knute Landreth. Dr. Mark Belyea also returned to practice in Huron. Dr. Jim Monfore left his position with the Hand County Clinic in Miller to practice emergency medicine in Watertown.

Dr. Tom Dean of Wessington Springs has become well known and widely involved in rural health issues. He currently serves as chairman of the Rural Health Advisory Commission in South Dakota as well as being president-elect of the National Rural Health Association.

The new district president is Dr. Richard Smith of Huron. Dr. Smith also served as president last year following the move of then president Dr. Jack Robbins from Huron to Sioux Falls.

Respectfully submitted,
Stephan Schroeder, MD
Fifth District Councilor

The Reference Committee reviewed the report of the Councilor from the Fifth District Medical Society and recommended it be accepted as submitted.

REPORT OF THE NINTH DISTRICT COUNCILORS

The Black Hills District #9 had two major projects this last year. The first was to continue the work of the legislative committee begun the previous year to improve the relationship between the area legislators and the members of the South Dakota State Medical Association.

Events in the past year involved a post-legislative session dinner and panel discussion held on April 20, 1989, and a more socially oriented dinner at Arrowhead Country Club on October 19, 1989, which was attended by physicians, legislators, and spouses. Another post-legislative session dinner and meeting is scheduled for April 5, 1990.

Discussion topics for these meetings have been coordinated with the staff of the South Dakota State Medical Association and either Lorin Pankratz or Bob Johnson have been in attendance at all of the above meetings.

The second project was commissioning and financing a study by Mr. Harry Christianson, a local attorney, to explore bringing a suit against Blue Cross-Blue Shield of North Dakota and/or HCFA for the large number of medically unnecessary letters received by physicians in this area. We were eventually informed by Mr. Christianson that we would be unlikely to prevail in a suit against an agency of the United States Government even if we could show potential harm to patients or if we could prove that South Dakota physicians receive more medically unnecessary letters than similar North Dakota physicians. This information was presented to the Council of the South Dakota State Medical Association in June of 1989. Meetings for the year were as follows: May 18, 1989, Dr. Steve Calhoon discussed transtracheal oxygen therapy; July 27, 1989, a social meeting was held at the Black Hills Playhouse with a barbecue dinner; September 21, 1989, Dr. Jim Kullbom spoke on physician sabbaticals; November 30, 1989, a social meeting at the Arrowhead Country Club in conjunction with Rapid City Regional Hospital; January 18, 1990, South Dakota Foundation for Medical Care informative meeting with Dr. Ted Sattler, Paul Jensen and Mary Van Loh; February 8, 1990,



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presidential visit with Dr. Michael Pekas and Bob Johnson in attendance; March 15, 1990, Blue Shield vs. DakotaCare with Dr. Russell Harris, Bob Johnson, Ben Johnson, and Peter Galindo. Black Hills District continued community involvement with support of Storybook Island and being a co-sponsor of Rapid City Regional Hospital Fun, Run, Walk and Roll.

Black Hills District has several new members, including Drs. Frost, Habbe, Papendick, Weaver and Schurrer, all from the South Dakota School of Medicine Class of 1984.

Respectfully submitted,
Thomas Krafka, M.D.
Ed James, M.D.
James Engelbrecht, M.D.
James Jackson, M.D.
Richard Renka, M.D.
Ninth District Councilors

The Reference Committee reviewed the report of the Councilors from the Ninth District Medical Society and recommended it be accepted as submitted.

REPORT OF THE TENTH DISTRICT COUNCILOR

The Rosebud District Medical Society met January 9, 1990, at the Homesteader Restaurant, Gregory, South Dakota. In attendance were special guests, South Dakota State Medical Association President, Michael Pekas, M.D., Mr. Bob Johnson, Chief Executive Officer and Lorin Pankratz.

Discussion was held regarding the RBRVS and pertinent legislative issues. An extensive discussion was also held as to the pros and cons of state mandated membership in the AMA.

New officers for the coming year are as follows:

R. G. Nemer, MDPresident
John Malm, MDSecretary
Gregg M. Tobin, MDDelegate
Edwin Sweet, MDAlternate Delegate
Mary S. Carpenter, MDCouncilor

Respectfully submitted,
Mary S. Carpenter, MD, FAAFP
Tenth District Councilor

The Reference Committee reviewed the report of the Councilor from the Tenth District Medical Society and recommended it be accepted as submitted.

REPORT OF THE ELEVENTH DISTRICT COUNCILOR

During the past year we have had several meetings of the Eleventh District Medical Society at which time scientific sessions were presented on various topics with outside consultants. In January of 1990, we met with the officers of the South Dakota State Medical Association prior to the legislative session beginning in Pierre.

During the February, 1990 meeting, new officers for the Eleventh District Medical Society were elected and they are as follows: Ben Henderson, DO, President, J. D. Collins, MD Vice President; L. M. Linde, MD, Secretary, Dave Yecha, MD, Delegate; L. M. Linde, MD, Alternate Delegate; James Wunder, MD, Councilor; Dave Yecha, MD, Nominating Committee Member.

Respectfully submitted,
James F. Wunder, M.D.
Councilor, Eleventh District

The Reference Committee reviewed the report of the Councilor from the Eleventh District Medical Society and recommended it be accepted as submitted.

REPORT OF THE TWELFTH DISTRICT COUNCILOR

During the past year there have been three meetings of the Whetstone Valley District Medical Society. Business sessions were conducted in addition to scientific presentations. The spring meeting was held at Webster, South Dakota. A scientific program was presented. Officers elected for the year 1989-90 were Benjamin Chaska, MD, president, Kevin Bjordahl, MD, secretary, Benjamin Chaska, MD, councilor, Kevin Bjordahl, MD, alternate councilor. Dr. Bjordahl was elected as delegate to the House of Delegates for the annual meeting of the South Dakota State Medical Association. Dr. Chaska was elected as alternate delegate. The fall meeting was held in Rosholt, South Dakota. Dr. Pekas, president of the South Dakota State Medical Association, and Robert Johnson, secretary of the South Dakota State Medical Association, were present. President Michael Pekas, MD and Robert Johnson reported on DAKOTACARE and Medicare provider relations. The last meeting of the year was held in the winter in Milbank, South Dakota. Dr. Carpenter gave a presentation on common cardiac problems.

Respectfully submitted,
Benjamin W. Chaska, MD
Twelfth District Councilor

The Reference Committee reviewed the report of the Councilor from the Twelfth District Medical Society and recommended it be accepted as submitted.

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REPORT OF THE COMMISSION ON LEGISLATION AND GOVERNMENTAL RELATIONS

The Commission on Legislation held its yearly meeting in late October, 1989. At that time the commission members reviewed a variety of legislative issues and subsequently made recommendations to the SDSMA Council. A complete review and summary was provided in the final legislative report of the Grab Bag.

The Medical Association sponsored one bill in the 1990 session and that was to provide clarifying language to the Physician Assistant Practice Act. This bill passed. The Association supported ten different legislative issues (to include the P.A. Act) and six of those bills passed. In addition, the Association supported Governor Mickelson's request for a 4% increase in Medicaid funding for physician services and the legislature supported that request. Issues that continue to fail are the regulation of smoking in restaurants and a seat belt law for adults.

The Association formally opposed six bills with our position prevailing on five of them. The two major issues were the chiropractors' request to have their services covered by DAKOTACARE when it is a public funded group such as a city or county group. This was the only bill the Association opposed that passed. There was overwhelming support for the chiropractors' position. The other major issue opposed was the request to mandate insurance coverage of mammography screens. The Association opposed this proposal on the basis of increased costs associated with mandated benefits. The bill was amended to say that insurance companies must offer coverage for this benefit and if a group wanted the coverage they could purchase a mammography rider. With this amendment the Association took a neutral position and the legislation passed.

The Association monitored twenty-four other bills specifically and kept an eye on many others. Many of the bills monitored were health care issues that had not been previously addressed in the legislature and the Association did not have the opportunity to review them in detail. It appears as though the overall topic of health care is becoming a more important issue for the legislature and the Association must be prepared to respond accordingly.

The Commission again recommends that physicians take an active role in the political process and encourage all physicians to get to know their legislators on a personal basis. The Commission also encourages each District Medical

Society to host their legislators at least once during the year to discuss health care issues of concern to all physicians and patients.

Respectfully submitted,
Thomas H. Olson, MD, Chairman
Commission on Legislation
and Governmental Relations

The Reference Committee reviewed the report of the Commission on Legislation and Governmental Relations and recommended acceptance of this report.

REPORT OF THE COMMISSION ON MEDICAL SERVICE

The Commission on Medical Service met once in 1989 -- on September 7. Four members were present.

We reviewed a Health Department report on completion of revised (longer, more involved) birth records. Several

physicians had expressed concerns about having to complete yet another FORM. Most of the forms were being completed. Hospitals whose physicians weren't completing the birth records were addressing the problem.

We reviewed the state diabetes education program for information. Our Commission has been following this program since its inception (one of our members is an advisor) and acting as a watch dog to ensure that funds are being used wisely.

We reviewed information on insurance reimbursement in South Dakota for mental illness. Several insurance companies provided information on their mental illness reimbursement policy. The Commission was primarily concerned about the mental illness claims denied by Medicare.

We decided to obtain more information from Medicare, review this, and invite Dr. Kennelly to our next meeting to provide the Psychiatric Association's input. Then we would be able to provide a report to the House of Delegates as they requested in June, 1988.

We discussed the Long Term Care Pre-admission Assessment form (necessary before a patient may enter a nursing home). We informed the Department of Social Services that we question the value and cost-effectiveness of this program. Also, the patient's physician should be made aware of the assessment decision and have an avenue of recourse if he/she disagrees.

We reviewed a complaint that American Family Insurance requests extensive patient information prior to paying a claim. We moved to include an item about this problem in the Grab Bag and solicit any physician input. We would mention insurance companies in general in the item to avoid biasing the replies.

The Watertown Medical District had asked our Commission to review and investigate claims for increased health care costs. We felt that this is an extremely complex issue that might be beyond the scope of our Commission. We informed the Watertown District about our feelings, asking for the intent of the resolution, and if there was a specific issue we might address. No response has been received.

We discussed insurance pre-admission criteria and felt this was not a major problem at this time. The Medical Association has not received many complaints on this recently. The issue will be monitored and resurrected if problems surface.

Respectfully submitted,
Jerome W. Bentz, MD, Chairman
Commission on Medical Service

The Reference Committee reviewed the report of the Commission on Medical Service and recommended acceptance of this report.

REPORT OF THE COMMISSION ON SCIENTIFIC MEDICINE

The Commission on Scientific Medicine met once this year on September 14, 1989. Those present for roll call were Drs. Edward Zawada, Robert Talley, Robert Raszkowski, Roy Burt, Greg Tobin and Kevin Whittle. SDSMA staff members present were Mrs. Jan Anderson and Mrs. Donna Sievers.

The minutes of the previous meeting were reviewed and approved.

Discussion was held regarding the following:

OLD BUSINESS

1) Evaluations and comments from 1989 annual meeting
- Note was made of the few number of evaluations turned in and the poor attendance of the scientific sessions. This was accepted for information.

2) Acupuncture and its Role in Medical Practice - The Commission reviewed information from doctors in South Dakota and others from throughout the country (who have been trained to use acupuncture). It was felt by the Commission that more information needs to be gathered regarding scientific evidence of the actual advantages or efficacy of acupuncture. A motion was made by Dr. Talley to accomplish this by: (1) doing a Med Line search; (2) inquiring of the AMA as to any studies that may have been done and (3) contacting a national review agency to determine if there is evidence supporting the efficacy of acupuncture. The motion was seconded and carried.

Dr. Zawada suggested that Drs. Tobin and Elson should assist Dr. Talley to review any materials on the efficacy of acupuncture in medical practice and make a report at the next Fall meeting.

3) State Health Department report regarding Cancer Prevention and Control - This was accepted for information.

NEW BUSINESS

1) Resolution #7 from the 1989 Annual Meeting - Considerable discussion was held concerning the resolution submitted by Dr. Robert Goodhope regarding JCAHO accreditation standards and their quality assurance aspects. The Commission agreed it is appropriate that this matter be studied but noted quality assurance cannot cease while the studies are underway. A motion was made by Dr. Talley that the Commission on Scientific Medicine supports a resolution to study the efficiency and cost effectiveness of quality assurance standards and that the South Dakota State Medical Association ask the American Medical Association to undertake such a study on a national level. The motion was seconded and carried.

2) Letter from AMA Caucus - This was accepted for information.

3) 1990 Annual Meeting - The following general topics were proposed:

1) Ethics (1-1/2 hours) - General presentation on a variety of ethical questions submitted by South Dakota physicians.

A suggestion was made by Dr. Talley to contact the districts asking for two cases that demonstrate medical/ethical principles.

2) Native American Health Care (1 hour) - Perspective of the different cultures and beliefs associated with native American health care as it relates to ethics.

3) Physician Rehabilitation Program (1/2 hour) - Information and question period on the purpose and scope of this program.

Second half day - quality assurance cases:

Several South Dakota physicians will discuss the eight major medical care problems as determined by the PRO. The discussants will give a brief evaluation of each problem area and appropriate procedure to avoid reoccurrence.

Annual Meeting Format

The Commission recommended the following:

-No physician only social; include spouses

- Not have the convention carry over to Sunday
- Have the AMA-ERF event Thursday night
- Have the annual banquet Friday night with awards and speakers after dinner
- Doctors be "on their own" Saturday night or return home
- Specialty societies meet between 1:00 and 3:00 on Saturday afternoon

It was suggested that a second meeting of this Commission to finalize annual meeting plans might be accomplished through a conference call.

Dr. Zawada reported to the Commission on his participation in "Pharmacy, Where Are We Going?" a program sponsored by the South Dakota Pharmaceutical Association for the members information.

There being no further business, the meeting adjourned at 5:45 p.m.

Respectfully submitted,
Edward Zawada, MD, Chairman
Commission on Scientific Medicine

The Reference Committee reviewed the report of the Commission on Scientific Medicine and recommended acceptance of this report.

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REPORT OF THE COMMISSION ON INTERNAL AFFAIRS, COMMUNICATIONS AND LIAISON

The Commission held two meetings this year. The action of the second meeting is not included in this report due to time table issues.

The Doctor of the Day Program for the legislative session in 1989 and 1990 was analyzed. It continues to be a successful program and the Commission recommends its continued involvement.

Regarding ShareCare, it was pointed out that problems were being experienced getting the information to the low-income elderly persons. It was moved, seconded and passed that the Commission encourage the implementation of a program similar to that of the Montana State Medical Association which would mean less voluntary and more State Medical Association involvement with the administrative portion of this program. This will need further direction by the Council and the State Medical Association membership.

Unified membership was an issue addressed by this Commission. It was moved, seconded and passed that each individual district evaluate the question of unified membership.

There were questions regarding the role of medical staffs with hospitals, uncompensated medical care, and living will/durable power of attorney directed to this Commission which were subsequently discussed with no action being taken.

A photography company approached the State Medical Association about publishing a physicians' pictorial member directory. It was thought that hiring this company was not necessarily a wise idea, but the development of a pictorial directory was a good idea. The Commission then suggested that the best way to do it would be to utilize local photographers rather than one single photographer for the state. Further action on this item will occur at the spring commission meeting.

Regarding the South Dakota Medical Journal, it was noted that the Journal is looking very good and the quality of its contents remains on a high level. The financial support by advertisers however has waned some. The physician membership need to encourage pharmaceutical representatives to support the Journal with advertisements. This information will be shared with the remaining physicians of the state, hopefully at the June meeting.

The South Dakota member physicians deceased during the preceding year include the following: Alton J. Saxton, MD, Maurice Rousseau, MD, John S. Devick, MD, Elven T. Plowman, MD, Samuel Bandiera, MD, Paul Boom, Jr., MD, Leonard Tobin, MD, Warren Anderson, MD, Jose Villa, MD.

Respectfully submitted,
Richard P. Holm, MD, Chairman
Commission on Internal Affairs,
Communications and Liaison

The Reference Committee reviewed the report of the Commission on Internal Affairs, Communications and Liaison and recommended acceptance of this report.

HEALTH CAREER GRANT FUND

FINANCIAL REPORT

Balance in account 3-1-89 \$ 907.32

INCOME

Transfer from CD # 553	\$ 1,000.00	
Transfer from CD #1423	\$11,528.88	
Principal	\$ 1,394.00	
Interest on Loans	\$ 103.59	
Interest on Savings A/C	<u>\$ 243.24</u>	
	\$14,269.71	<u>\$14,269.71</u>
		\$15,177.03

EXPENSES

4 grants @ \$500	\$2,000.00	<u>\$ 2,000.00</u>
Balance in Account 3-1-90		\$13,177.03
Certificates of Deposit		
#45330, 1 year, due 7-5-90, 8.50%		\$22,054.80
#2325, 1 year, due 6-9-90, 8.25%		<u>\$ 6,306.25</u>
		\$28,361.05
Interest Earned on CD's and Savings		
Savings A/C #29341	\$ 243.24	
#553	\$ 873.31	
#1423	\$ 888.09	
#2325	<u>\$ 400.94</u>	
	\$2,405.58	
Assets 3-1-90		
Certificates of Deposit		\$28,361.05
Savings Account		\$13,177.03
Outstanding Loans		<u>\$ 449.56</u>
		\$41,987.64

The Reference Committee reviewed the financial report for the Health Career Grant Fund and recommended acceptance of this report.

1990-1991 BUDGET

SOUTH DAKOTA STATE MEDICAL ASSOCIATION

GENERAL FUND

ITEM	BUDGETED 89-90	PROPOSED 90-91
INCOME		
State Dues	\$260,000.00	\$265,000.00
Annual Meeting	30,000.00	33,000.00
Refunds & Misc.	9,000.00	9,000.00
Car Reimbursement	1,000.00	1,000.00
Continuing Medical Education	1,000.00	1,000.00
Salary Reimbursement	24,600.00	29,000.00
Other Programs		
7th Dist. Salary Reimb.	1,350.00	1,350.00
Equip. Replacement Fund	15,000.00	16,000.00
Med. Student & Res. Dues	1,000.00	1,000.00
Interest	40,000.00	40,000.00
Hedged Admin. Service Fee	0.00	30,000.00
Other	<u>9,000.00</u>	<u>8,000.00</u>
	\$391,950.00	\$434,350.00

EXPENSES

Salaries	\$187,000.00	\$205,000.00
Social Security	10,000.00	14,500.00
Legal & Audit	12,000.00	13,000.00
Telephone	7,000.00	8,000.00
Office Supplies	10,000.00	10,000.00
Dues & Subscriptions	1,500.00	1,500.00
Physician's Travel	16,000.00	\$18,000.00
Annual Meeting	30,000.00	30,000.00

Public Relations	12,000.00	14,000.00
Journal Subsidy	4,000.00	5,000.00
Postage	9,000.00	11,000.00
Miscellaneous	100.00	100.00
Legislation	11,000.00	11,500.00
Staff Travel	14,500.00	15,500.00
Insurance	4,000.00	4,000.00
Retirement/Fringe Benefits	42,900.00	44,000.00
Car Operation & Maintenance	2,500.00	2,500.00
Auxiliary Allocation	2,000.00	4,000.00
Unemployment Tax	850.00	850.00
Continuing Medical Education	750.00	750.00
Income Tax	500.00	500.00
Medical Student Fund	<u>1,500.00</u>	<u>1,500.00</u>
	\$379,100.00	\$415,200.00
Reserve	<u>12,850.00</u>	<u>19,150.00</u>
	\$391,950.00	\$434,350.00

Mortgage Payments	<u>38,137.20</u>	<u>63,300.00</u>
	\$114,137.20	\$161,500.00
Reserve	<u>11,962.80</u>	<u>10,300.00</u>
	\$126,100.00	\$171,800.00

The Reference Committee reviewed the proposed budget for 1990-91 and recommended acceptance of this budget.

REPORT OF THE COMMISSION ON PROFESSIONAL LIABILITY

The Commission on Professional Liability met once during the year of 1989. This meeting occurred in April. Because of no real pending agenda and difficulty in getting a quorum for a meeting in the Fall, no Fall meeting was held. The Commission, however, will be meeting in the first part of May prior to the annual meeting.

Part of the reason for lack of an agenda has been the improved status of medical liability insurance with physicians in South Dakota insured by St. Paul Fire and Marine receiving a decrease in their medical malpractice insurance rates. Rate adjustments country-wide will average a 14.1% decrease effective with policy renewals for the year of 1989 and 1990. This represents those physicians insured by St. Paul Fire and Marine. The actual ranges in 34 of 42 states where decreases in premium rates are occurring, range from 5% to 30%. The decrease in premiums for malpractice insurance reflects a decrease in the frequency of claims reported by doctors over the past two years. That rate has gone from 14.4 claims per 100 doctors in 1987, to something under 13 claims per 100 doctors in the past year. However, while the frequency of claims has declined, severity or average cost of reported claims now stands at \$39,298 for the total year of 1988. This

1990-1991 BUDGET

JOURNAL OF MEDICINE

ITEM	BUDGETED 89-90	PROPOSED 90-91
INCOME		
Advertising	\$28,000.00	\$26,000.00
Subscription	1,000.00	1,000.00
Refunds	720.00	720.00
Journal Subsidy	4,000.00	5,000.00
Miscellaneous	<u>4,500.00</u>	<u>2,500.00</u>
	\$38,220.00	\$35,220.00
EXPENSES		
Salaries	\$ 2,200.00	\$ 2,200.00
Social Security	75.00	100.00
Legal & Audit	100.00	100.00
Telephone	100.00	100.00
Postage	3,500.00	3,500.00
Office Supplies & Printing	32,145.00	28,720.00
Travel	<u>100.00</u>	<u>500.00</u>
	\$38,220.00	\$35,220.00

BUILDING FUND

ITEM	BUDGETED 89-90	PROPOSED 90-91
INCOME		
DakotaCare Rent	\$ 72,000.00	\$118,000.00
Foundation Rent	40,000.00	45,000.00
Board of Exam. Rent	9,600.00	8,800.00
Interest Income	3,000.00	
SD Health Co.	<u>1,500.00</u>	
	\$126,100.00	\$171,800.00
EXPENSES		
Salaries	\$ 23,000.00	\$ 29,000.00
Social Security	1,800.00	2,200.00
Real Estate Taxes	12,200.00	17,000.00
Legal & Audit	2,500.00	2,500.00
Utilities	14,000.00	19,000.00
Maintenance & Supplies	16,000.00	19,000.00
Insurance	5,000.00	6,000.00
Income Tax	1,500.00	3,500.00

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represents a 6% increase over 1987 and a 15% increase over 1986. Severity includes claims paid, claims closed without payment, open claims and defense costs. Other insurance companies besides St. Paul Fire and Marine are also reporting similar improvements in experience which has been leading to a more stable market for medical liability insurance for physicians and surgeons.

Other issues which the Commission has dealt with as agenda items include the following: 1) The Commission has sought South Dakota specific information from the Minnesota Insurance Commission Office dealing with the Hatch Report and, also is attempting to develop similar information from the South Dakota Commission Office in order to compare the data for consistency and also to see how South Dakota alone rates in the malpractice market. This information will be dealt with at the May meeting. 2) Another issue the Commission has on its agenda deals with the protection of pension plans. Legal consultation indicated in South Dakota, pension plans were protected against bankruptcy except in the case of involuntary bankruptcy. However, this has not been clearly established in our minds but is in concert with national legislation. Dr. William Taylor, a legislator from Aberdeen, introduced a bill dealing with protection of pension plans at the last legislative session, however, this bill did not get out of committee and was tabled. It is thought that there will be some further effort to reintroduce legislation on perhaps a less broad scale and dealing with a limited amount of money that can be protected. This again will be discussed at our May meeting and efforts will be made to support Dr. Taylor in his effort to further legislation on this subject. 3) Another agenda item deals with risk management, and it is the desire of this Commission to pursue efforts relative to involving insurance carriers with various risk management programs. Members of the Commission met with St. Paul Fire and Marine Insurance Company in November of 1989, and there was moderate interest expressed. Currently the Commission is in correspondence with the Company to materialize some positive risk management efforts. This subject was brought to the attention of the Commission by the American College of Surgeons.

By no means has the malpractice crisis disappeared but there are certainly signs and indications that it has lessened, both in terms of the number of cases per year and a noted mild decrease in premium rates. We salute this change and anticipate further improvement with more public awareness and professional effort to reduce the risk factors in our practice.

Respectfully submitted,
Jerry L. Walton, MD, Chairman
Commission on Professional Liability

The Reference Committee reviewed the report of the Commission on Professional Liability and recommended acceptance of this report.

REPORT OF THE COMMITTEE FOR CONTINUING MEDICAL EDUCATION

The composition of the CME Committee significantly changed at the start of this year. The Committee now reflects both physicians with an interest in CME and those who have CME responsibilities in hospitals granted CME accreditation by the SDSMA. Additionally, support staff from accredited hospitals participate in the meetings which are held by teleconference.

As joint sponsorship with the School of Medicine becomes a less viable option for hospitals, additional hospitals are expected to become active producers of their own AMA Category I CME programs. By the end of this year, the Brookings Hospital will have joined Rapid City Regional Hospital, Sioux Valley Hospital and McKennan Hospital in this status, and at least five additional hospitals are also actively considering this possibility.

The Committee recommended, and the Council subsequently approved, a \$200 annual fee for hospitals granted CME accreditation, with a first-year application fee of \$250.

During the year, the Committee reviewed and accepted interim reports from Rapid City Regional Hospital and Sioux Valley Hospital. The report submitted by the SDSMA to the Accreditation Council for Continuing Medical Education (ACCME) was favorably reviewed.

Quality of care issues from the South Dakota Foundation for Medical Care (PRO) were discussed and disseminated as one component of the needs assessment process for planning CME programs in the state. (Input from the Foundation was also used in planning a portion of the Scientific Session of the Annual Meeting.)

During the year, the Committee systematically began reviewing the Essentials of the ACCME, reviewed program brochures which were received for appropriateness, and discussed national meetings so that CME providers in South Dakota can learn more about the accreditation process.

Respectfully submitted,
Robert R. Raszkowski, MD, Ph.D., Chairman
Committee for Continuing Medical Education

The Reference Committee reviewed the report of the Committee on Continuing Medical Education and recommended acceptance of this report.

REPORT OF THE BUDGET AND AUDIT COMMITTEE

The Budget and Audit Committee met in January of 1990 just prior to the Council meeting.

Mr. Robert Johnson reviewed the proposed budget and the committee suggested that the SDSMA President-elect attend the AMA annual meeting and the Vice President attend the National Leadership Conference.

It was announced that the sponsor fee for pharmaceutical or other type of representative at the 1990 state meeting would increase for 1991.

This committee agreed with the Commission on Internal Affairs on the advantages of a pictorial directory of the membership and monies were approved to accomplish this action.

Respectfully submitted,
Richard P. Holm, MD, Chairman
Budget and Audit Committee

The Reference Committee reviewed the report of the Budget and Audit Committee and recommended acceptance of this report.

REPORT OF THE SHARECARE COMMITTEE

The Sharecare Committee has been meeting regularly throughout 1989. Some of these meetings have been held in combination with the Executive Committee of the Senior Citizens Organization.

At the combined meeting in June of 1989, the Sharecare program was reviewed and several problems noted - there

are approximately 1,500 elderly in the program which represents roughly 10-15% of the eligible senior population. The enrollment is not as high as had been hoped for or anticipated. Discussion of this concern ensued.

The number one problem is felt to be communicating the existence of the program to the elderly. It was noted that more active involvement by physicians would lend credibility and spread knowledge of the program. A lack of senior citizen centers in some areas was also noted as well as dwindling interest in the program and fewer enrollment dates at participating centers, and inability by some of the applicants to pay the \$5 fee for enrollment in the senior citizen program.

Ways and means of overcoming these problems were then discussed and the committee formally approved allowing people to apply for Sharecare by mail.

In September of 1989, the Committee met without the Senior Citizen Executive Committee and we adopted a recommendation that a brochure application form, similar to that used by the Montana Medical Association, would be distributed from physicians' offices, senior citizen centers, county health nurses and to all medicare recipients in South Dakota and that applications could be processed at the South Dakota State Medical Association or through the senior citizen centers. A \$5 fee would not be asked of the applicants unless they wished to join through the senior citizen group. The South Dakota State Medical Association would bear the cost of printing and distribution of the brochures as well as the application process. This proposition subsequently met with a lot of opposition from the Senior Citizen Executive Committee who felt they were being cut out of the program and being denied access to enrollment of possible new members. The questions of how to present this information and how to process the applications is currently under consideration by the members of the Senior Citizen Executive Committee and the ShareCare Committee. We anticipate resolution of the problems and subsequent printing and dissemination of the new brochure in early to mid 1990.

Respectfully submitted,
Michael R. Ferrell, MD, Chairman
ShareCare Committee

The Reference Committee reviewed the report of the ShareCare Committee and recommended acceptance of this report.

REPORT OF THE GRIEVANCE COMMISSION

The Grievance Commission convened at the time of the state meeting and current matters were fairly well resolved at the time of that meeting. All other concerns and matters brought to the attention of the Commission in the intervening period have been resolved either by correspondence or by telephone communication. It seems to me that there were more problems in the last year, primarily relating to difficulties in communication between physicians and between physicians and patients. We hope that this will not be a trend for the future and that we may all tend to encourage closer communication with our patients, particularly with the attitude that the "customer is always right". The complexity of some of the problems that were brought before the commission also seem to be increasing and I would like to take this opportunity to thank all members of the Commission for their very good response and their thoughtful wisdom in arriving at some form of resolution of the problems presented. I would also like to assure the mem-

bers of the Association that the Grievance Commission does in fact do a very good job and serves their appointed task well. It has been an enlightening experience for me and I do feel that I have gained considerable insight in a number of matters through my associations with my colleagues over the past five years.

Respectfully submitted,
H. L. Saylor, Jr, MD, Chairman
Grievance Commission

The Reference Committee reviewed the report of the Grievance Commission and recommended acceptance of the report.

REPORT OF THE SOUTH DAKOTA POLITICAL ACTION COMMITTEE

The 1989-1990 year has been a busy one even though 1989 was a non-election year. The following Board members retired after many years of service: Drs. Nathaniel Whitney, Jim Ryan and Jim Wunder. Auxilians retiring were: Marilyn Alvine, Mary Ann Harris, Ruby Mutch and Shirley Ryan. Two members resigned for other reasons: Dr. Steve Schroeder was elected to the SDSMA Council and Dr. Mary Ann Bauman moved to Oklahoma. Thank you to each of you for your service and a very special thank you to Dr. Nathaniel Whitney, a long time SoDaPAC Board member and past Board chairman.

The Board has also added many new faces to the roles this year and they are: Drs. John Barlow, Curt Buchholz, Robert Goodhope, Loyd Wagner and Tom White. The new auxilian member is Ann Barlow and the new clinic manager representative is Lori Marty. Congratulations to each of you and welcome to the Board.

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New SoDaPAC officers were elected at the 1989 meeting in Sioux Falls and they are as follows: Chairman - Marie Hovland, Chairman-Elect - Dr. Richard Porter, Vice President - Dr. Mike Pekas, Secretary - Dr. Tom Huber, and Treasurer - Robert Johnson. Thank you to each of the officers for accepting their new responsibilities and to the Board for giving me the honor of serving as your chairman.

1989 saw the printing of a new SoDaPAC brochure. This is the first time SoDaPAC published a brochure completely on its own and it is an excellent one. I encourage each of you to review it and take its message to heart.

In November, 1989, SoDaPAC helped sponsor a one day legislative key contact seminar with AMPAC. Ten physicians participated in the meeting in Minneapolis and found it to be most worthwhile and useful.

Dr. Jerry Schenken of the AMA Board of Trustees has agreed to be the SoDaPAC luncheon speaker at the SDSMA annual meeting. The SoDaPAC Board at their January, 1990 meeting, voted to support Governor George Mickelson in his re-election campaign. At that same meeting, the Board voted to meet in April, 1990, to review the candidate list for the 1990 primary elections.

The coming year brings us many challenges. The Board of Directors asks each of you to become involved in the political process at your local level. Get to know the candidates that are running so that you will know those who are elected, and last but not least, please make your personal contributions to SoDaPAC/AMPAC today.

Respectfully submitted,
Mrs. Marie Hovland, Chairman
South Dakota Political Action Committee

The Reference Committee reviewed the report of the South Dakota Political Action Committee and recommended acceptance of this report.

REPORT OF THE BOARD OF DIRECTORS SOUTH DAKOTA MEDICAL SCHOOL ENDOWMENT ASSOCIATION

The annual meeting of the Board of Directors of the South Dakota Medical School Endowment Association convened at 7:00 a.m. on June 9, 1989, at the Ramkota Inn in Sioux Falls, South Dakota. Present for roll call were Doctors Robert Giebink, Warren Jones, Bruce Lushbough, T. H. Sattler, Howard Saylor and Joseph Hamm, Chairman. Guests included Dr. Raymond Lynn, Dr. Robert Talley, Dean of the USD School of Medicine (USDMS), Dr. James Rud and Dr. Gerald Tracy. Mrs. Jan Anderson was appointed Recording Secretary. The minutes of the previous meeting were approved as printed and circulated.

Nominations were in order for President. On motion made, duly seconded and passed the incumbent officers: Joseph N. Hamm, M.D., President; Robert Giebink, M.D., Vice-President; and Warren Jones, M.D., Secretary; were elected to another one-year term.

The financial report for 1988 and the first four months of 1989, was reviewed. On motion by Dr. Bruce Lushbough, seconded and passed, the Board directed that the special savings account be transferred to the Bequest Fund Cash Convenience Account to facilitate bookkeeping. The Board requested that the Executive Office prepare for study and distribute to board members a list of the types of investments held by the Endowment Association. On motion by Dr. Saylor, seconded and passed, the financial report was approved.

Distribution of the disburseable income from the Wulbers Fund was considered and two awards of \$1,500 each were made for 1989-1990.

Dr. Lushbough reported that the Alumni Foundation would transfer administrative activity from the Endowment Association office to Dr. Loren Amundson's office on July 1, 1989. Because of this move it will no longer be necessary to invite the president and secretary of the Alumni Association to the annual meeting of the Endowment Association. Dr. Lushbough reported that the Alumni Foundation held assets of \$250,000. He also moved that limited financial reports be shared by the two organizations on a continuing basis. The motion was duly seconded and passed.

Dr. Lynn discussed the needs and available sources of funds for scholarships and loans for students at the USDSM. He reported that tuition has been increased which will increase the financial burden of students accordingly.

Establishment of scholarships at USDSM was discussed. The amount needed to fund a scholarship which would carry the benefactor's name, and whether the gift could be cumulative over a period of time, or must be a one-time donation were considered. The Board requested the Executive Office to study scholarships and to recommend a course of action. Past due loans were reviewed. One was referred to legal counsel for collection. Maximum for loans was established at \$1,500 per year and \$6,000 per student. Action was taken to limit loans to students at USDSM who are not U.S. citizens to the amount of tuition only.

By direction of the Board a letter was sent to University President Asher suggesting that the USDSM assets managed by the University of South Dakota Foundation should justify appointment of a representative from the Medical School to the Foundation. The request was denied because of the number of physicians already appointed.

Fund raising activities were considered. It was decided to continue three mailings per year. One letter mailed to all USDSM alumni was to include a brief history of the Endowment Association and its functions, and information about the financial needs of USDSM students. There being no further business the meeting was adjourned at 9:00 a.m.

Throughout the year business matters requiring board action were managed by mail or telephone conversation.

It has been a privilege and a pleasure to work with the Board and staff of the executive office during the past, and to express the gratitude of the Board to Mrs. Jan Anderson for her invaluable assistance.

Respectfully submitted,
Joseph N. Hamm, MD, President
Board of Directors, South Dakota
Medical School Endowment Association

The Reference Committee reviewed the report of the Board of Directors of the South Dakota Medical School Endowment Association and recommended acceptance of this report.

REPORT OF THE PHYSICIANS HELP COMMITTEE

The committee met in conjunction with the Auxiliary Committee at the June meeting in Sioux Falls. Dr. Bean announced that he was moving to Texas, and therefore, had to resign from the committee. We appreciate all of Dr. Bean's help and faithfulness on serving on the committee. We are in the process of finding another psychiatric representative to serve. The committee went on record as urging the Program Committee to consider a half day seminar by Dr.

Joseph and Sharon Cruse on issues on dependency. This was presented to the committee, but they were unable to schedule it for this year. Hopefully, we can bring it back to the committee in the future.

There have been several requests for assistance to the committee during the year. The outcome of these referrals generally has been very satisfactory. I want to thank the committee members who have assisted me with these referrals. The committee continues to offer its assistance in any way possible to the impaired physician, family or friends. Referrals may be made directly to the committee or to the executive office.

Respectfully submitted,
Neil J. Elkjer, MD, Chairman
Physicians HELP Committee

The Reference Committee reviewed the report of the Physicians HELP Committee and recommended acceptance of this report.

REPORT OF THE MEDICAL-LEGAL COMMITTEE

The Medical-Legal Committee met in November of 1989, at which time several issues of importance to both professions were discussed. After extensive discussions and review, the Medical-Legal Committee recommended to the Council that a \$10.00 minimum fee be charged for the copying of medical records and \$.20 per copied page be assessed at that time. This recommendation was then sent to the Council for their action. In the past this issue has been discussed at length at other Medical-Legal Committee meetings and the committee felt that action was appropriate at this time.

The committee also discussed the charges for the taking of a deposition in the state of South Dakota and what a satisfactory fee might be. The committee felt that there should be better pre-disposition discussion communication to avoid any confusion regarding what fees are charged.

At this time further education to the professions will be provided so that dialogue can be generated regarding this difficult issue.

The committee discussed several bills that were pending before the South Dakota State Legislature and although no formal action was taken on the bills, the committee will seek further information as it pertains to our respective professions.

Finally, the committee felt that further efforts are necessary in the way of educating law students and medical students regarding their respective inner actions with one another and the need to develop a better understanding between the two professions. Therefore, the committee sent letters to the deans of the medical school and the law school recommending that some type of educational program be developed utilizing resources from both professions within the state to carry this process forward.

Respectfully submitted,
Walter O. Carlson, MD, Chairman
Medical-Legal Committee

The Reference Committee reviewed the report of the Medical-Legal Committee and recommended acceptance of this report.

REPORT OF THE ARCHIVES AND HISTORY COMMISSION

The Archives and History Commission has not had a formal meeting, however, informal communication has

resulted in two projects. Dr. Baltodano, a member of the commission, has authored a History of Medicine in South Dakota and negotiations for publication are ongoing.

The second project is a proposed "Families in Medicine" series of articles for the South Dakota Medical Journal. This series will be about families with three or more members involved in medicine in South Dakota, and initially we have three physicians who have agreed to author such articles.

Respectfully submitted,
John H. Hoskins, MD, Chairman
Archives and History Commission

The Reference Committee reviewed the report of the Archives and History Commission and recommended acceptance of this report.

REPORT OF THE AIDS TASK FORCE

The AIDS Task Force has been inactive this past year. The subject has received less attention in the lay press and so we have not had anything to discuss or respond to.

At the present time, there is a high level of knowledge in the South Dakota medical community on AIDS and the Human Immunodeficiency Virus (HIV). At our annual meeting in 1988, the scientific program was devoted to HIV and AIDS. This was arranged by Dr. Robert Raszowski, who was then Chairman of the Commission on Scientific Medicine. Clearly, we owe them our gratitude.

The members of the AIDS Task Force have done a great job for the Association, as we knew they would. Again, the entire Medical Association is the beneficiary of the good judgment and hard work of these gentlemen, who have my sincere thanks.

Respectfully submitted,
Durward M. Lang, MD, Chairman
AIDS Task Force

The Reference Committee reviewed the report of the AIDS Task Force and recommended acceptance of this report.

SPECIAL MEDICARE COMMITTEE REPORT

During the past year a Special Medicare Committee was formed by the South Dakota State Medical Association. There were two meetings held between the Special Medicare Committee and representatives from Medicare in Fargo. The first of these was on August 15, 1989, and the second of these was on January 23, 1990.

A good place to start might be in looking at some of the items that have been discussed and resolved.

1. The "medically unnecessary" denials were of great concern since implementation in October of 1987. Throughout the last year, Medicare has made some policy changes that hopefully have streamlined the number of "medically unnecessary" denials seen in your office.
2. There are some items which are non covered by Medicare which Medicare was denying as "medically unnecessary". These individually were discussed at the meeting and resolved. Offices that continue to receive "medically unnecessary" denials on non covered procedures are encouraged to report these to the committee.
3. Other specific billing issues were discussed individually at the Medicare Committee meeting and resolved. Individuals who have specific billing issues that they wish the committee to bring to joint meetings are encouraged to contact committee members.

4. The committee, along with the South Dakota Clinic Managers Third Party Committee, had asked for some wording changes on the Explanation of Medicare Benefits form. Medicare in Fargo agreed to work with the clinic managers to arrive at agreed upon verbal usage. This was accomplished and the change enacted.
5. During initial reviews on the Patterns of Care program, the committee pointed out the importance of involving all physicians throughout the patient's encounter in reviewing a Pattern of Care. Prior to this time, the family practitioners had been overlooked by Medicare, and Medicare agreed to redo those Patterns of Care and involve family practitioners as well.
6. The committee reported to Medicare that the training courses that they had provided for us in the diagnostic coding area were insufficient and as a result, additional training sessions were held.

There were some items that were discussed in considerable detail, but which the committee was unsuccessful in changing Medicare policies or in which the committee is still waiting for feedback as to the resolution.

1. There was a great deal of concern for many providers regarding Medicare's reimbursement for treadmills. Medicare did research all historical charges and payment allowances to determine that their payment methodology was indeed correct.
2. There was concern on the part of the committee that the Medicare law required that a refund be made to a patient for a "medically unnecessary" service after the informal review had been done, but before the hearing had been done. It was the committee's position that this was unfair to demand a refund to the patient prior to final resolution of the problem. Medicare indicated that this was not their issue, but rather law that they were complying with, and we were unsuccessful to cosponsor a letter with them asking Congress to review this law.
3. At one of the meetings we talked about the number of unassigned claims that seem to be lost somewhere within the system. There was specific concerns that this was happening with electronic submitted claims. Medicare was to do some research and report back and no further update is available as this time.
4. When the diagnostic coding requirement became effective last May, we identified the problem that this caused for radiology and pathology. At that time, we had talked about a joint letter from us going to Congress outlining this in detail. I am uncertain if this issue resolved itself prior to that letter being drafted.

There are a number of items that are pending on the agenda for the Special Medicare Committee.

1. The committee has stated that in addition to other concerns with Patterns of Care, philosophically, we have a problem with Patterns of Care having a geographic difference. On a quality issue we do not understand how a standard can vary from one geographic area to another.
2. Medicare's contemplation to change their consultation policy has been discussed by the committee. At an earlier meeting, the committee pointed out Medicare's inconsistencies with the CPT manual. As a result, Medicare revised their policy and there is confusion at this point as to how their change differs from the original actions of South Dakota providers.
3. An issue discussed with Medicare was why a physician receives less for making a house call than does a visiting nurse. Medicare agreed that this was true and offered to raise this issue, or help us raise this issue, with congress-

sional representatives. To date, we are waiting for a response from Medicare.

4. Patterns of Care, in general, continue to be topics at the Special Committee meetings.
5. Blue Shield of North Dakota offering a DAKOTACARE supplement to Medicare patients continues to be a topic at these meetings.
6. At the latest meeting, we asked Medicare for their knowledge on volume performance standards, of which they had none. This most likely will continue to be an ongoing item.
7. Recently, Medicare has asked for our comments regarding their suggested policy changes that relate to global surgery fees. It is anticipated that this will be on the agenda as well.

Overall, it was the feeling of the Special Medicare Committee that the meetings held with representatives of Medicare were worthwhile and should be continued in the future.

Respectfully submitted
James Reynolds, MD, Chairman
Special Medicare Committee

The Reference Committee reviewed the report of the Special Medicare Committee and recommended acceptance of this report.

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**ANNUAL MEETING MINUTES
SOUTH DAKOTA FOUNDATION FOR MEDICAL CARE**

May 31, 1990
10:45 am

Howard Johnson Motor Lodge
Rapid City, SD

The 15th Annual Meeting of the South Dakota Foundation for Medical Care was held on Thursday, May 31, 1990, at 10:45 am at the Howard Johnson Motor Lodge, Rapid City, South Dakota.

The meeting was called to order by Chairman Rodney Parry, MD. The roll call was taken with the following members being present: Doctors Michael Pekas, Jerome Eckrich, Richard Porter, M. George Thompson, James Reynolds, Bruce Lushbough, Durward Lang, Frank Messner, James Hovland, James Larson, Curtis Wait, Stephan Schroeder, Dennis Johnson, Jeffrey Hagen, Rodney Parry, Larry Finney, David Smith, James Engelbrecht, Thomas Krafka, Guy Tam, C. Roger Stoltz, Duane Reaney, Carol Zielike, Steve Haas, James Jackson, Richard Renka, Mary Carpenter, Ben Chaska, Thomas Luzier, Marlin Lamb, Gerald Tracy, Calvin Roseth, Richard Holm, Noel Chicoine, Tom Huber, Gary Bruning, Richard Smith, Howard Saylor, Richard Gere, Walter Baas, Lucio Margallo, Robert Talley, D. G. Ortmeier, James Ryan, Charley Gutch, William Rossing, Russell Orr, John Barker, Robert VanDemark, Jr, John Billion, Daniel Kennelly, T. H. Sattler, Robert Ferrell, Craig Hansen, Cynthia Weaver, Robert Goodhope, Russell Harris, John Barlow, James Rud, David Yecha, Nathaniel Whitney, O. Myron Jerde, and Ed Sweet.

The Chairman called for consideration of the minutes of the last annual meeting. He referred the membership to the Foundation minutes in the printed manual furnished to each member. Dr Lang moved that the minutes be accepted as published and the reading thereof waived. The motion was seconded and upon voice vote the same was approved unanimously.

Dr Parry reported that the following persons were elected to serve three year terms on the Board of Directors: Doctors Jerome Howe, Daniel Heinemann, Noel Chicoine, Everett Sanderson, Winston Odland, and Mr Byron Petersen.

The corporate body considered an amendment to the By-Laws of the South Dakota Foundation for Medical Care to appoint a CHAMPUS beneficiary to serve as an ex-officio member of the Board of Directors. A motion was made by Dr Tam that the corporate body approve this amendment to the By-Laws of the South Dakota Foundation for Medical Care. The motion was seconded and upon voice vote the same was approved unanimously.

Dr Parry called for consideration of the corporate financial report. He noted that the financial report was published in the Handbook which was furnished to each member of the body. Dr Parry asked the membership if there were any questions, qualifications, or corrections. There being no comments, Dr Lang moved that the financial report be approved as published. The motion was seconded and upon voice vote the same was approved unanimously.

Dr Parry referred the membership to the written report made by the President, and published in the Handbook, and also the written report contained therein of the Foundation's Medical Director. He asked if anyone had any questions therein. There being none, he noted that the reports would be filed with the records of the Foundation accordingly.

Dr Parry then asked for any comments from the floor. There being none, the meeting was adjourned at 10:50 am.

**ANNUAL MEETING MINUTES
SOUTH DAKOTA STATE MEDICAL
HOLDING COMPANY, INC**

May 31, 1990
10:50 am

Howard Johnson Motor Lodge
Rapid City, SD

The 2nd Annual Meeting of the South Dakota State Medical Holding Company, Inc, was held on Thursday, May 31, 1990, at 10:50 a.m. at the Howard Johnson Motor Lodge, Rapid City, South Dakota.

The meeting was called to order by Chairman Durward Lang, MD. The roll call was taken with the following members being present: Doctors Michael Pekas, Jerome Eckrich, Richard Porter, M. George Thompson, James Reynolds, Bruce Lushbough, Frank Messner, James Hovland, James Larson, Curtis Wait, Stephan Schroeder, Dennis Johnson, Jeffrey Hagen, Rodney Parry, Larry Finney, David Smith, James Engelbrecht, Thomas Krafka, Guy Tam, C. Roger Stoltz, Robert Raskowski, Duane Reaney, Carol Zielike, Steve Haas, James Jackson, Richard Renka, Mary Carpenter, Ben Chaska, Thomas Luzier, Marlin Lamb, Gerald Tracy, Calvin Roseth, Richard Holm, Noel Chicoine, Tom Huber, Gary Bruning, Richard Smith, Howard Saylor, Richard Gere, Walter Baas, Lucio Margallo, Robert Talley, D. G. Ortmeier, James Ryan, William Rossing, Russell Orr, John Barker, Robert VanDemark, Jr, Stephen Billion, John Billion, Daniel Kennelly, T. H. Sattler, Julie Stevens, Robert Ferrell, Craig Hansen, Cynthia Weaver, Russell Harris, John Barlow, James Rud, David Yecha, Nathaniel Whitney, O. Myron Jerde, and Ed Sweet.

The Chairman declared a quorum present for the purpose of doing business of the corporation.

The Chairman called for consideration of the minutes of the last annual meeting. He referred the membership to the SDSMHC minutes in the printed manual furnished to each member. The minutes were accepted as published and the reading thereof waived.

Dr Lang highlighted his President's Page, as contained in the printed manual furnished to each member.

Dr Lang reported on the election results. It was reported that the following persons were elected to serve three-year terms on the Board of Directors: Guy Tam, MD; Mr Bernard Christenson; and Mr William Freeburg.

Dr Lang introduced Dr Robert Ferrell as the new President of the SDSMHC Board of Directors. Dr Ferrell then addressed the corporate body members with some general comments about DAKOTACARE.

Dr Lang asked for any comments or further business from the floor. Dr John Barker asked that DAKOTACARE's relationship with Lincoln National be explained. He also commented on the financial statement as it relates to the commission fees paid. His last item of concern was about the various loans made to DAKOTACARE. Dr Lang and other members of the Board of Directors addressed these areas of concern.

There being no further questions or comments, the Chairman declared the meeting adjourned at 11:10 am.

MINUTES OF
SOUTH DAKOTA MEDICAL SERVICE, INC
CORPORATE BODY MEETING

10:15 am
May 31, 1990

Howard Johnson Motor Lodge
Rapid City, South Dakota

Chairman Rossing called the meeting of the Corporate Body of the South Dakota Medical Service, Inc, to order at 10:15 am, May 31, 1990, at the Howard Johnson Motor Lodge, Rapid City, South Dakota.

On roll call vote, the following members of the Corporate Body of the South Dakota Medical Service, Inc, were present: Doctors Frank Messner, Michael Pekas, J. A. Eckrich, Jr, M. George Thompson, James Reynolds, Bruce Lushbough, Durward Lang, Robert L. Ferrell, James Larson, Curtis Wait, Stephan Schroeder, Jeffrey Hagen, Richard Porter, Thomas Krafka, Richard Renka, James Engelbrecht, Mary Carpenter, James Hovland, Marlin Lamb, Gary Bruning, Howard Saylor, Denny Ortmeier, Robert Raszowski, Robert Talley, Dennis Johnson, John Barker, Charley Gutch, Julie Stevens, John Barlow, Stephan Haas, Nathaniel Whitney, Russell Harris, Robert Goodhope, Craig Hansen, James Rud, Larry Finney, David Smith, C. Roger Stoltz, Duane Reaney, Carol Zielike, James Jackson, Ben Chaska, Thomas Luzier, Gerald Tracy, Calvin Roseth, Richard Holm, Noel Chicoine, Tom Huber, Richard Smith, Richard Gere, Walter Baas, Lucio Margallo, William Rossing, Russell Orr, Stephen Billion, John Billion, Theodore H. Sattler, Cynthia Weaver, David Yecha, O. Myron Jerde, and Ed Sweet.

A quorum being present, the Chairman declared the annual meeting of the membership of the Corporate Body of the South Dakota Medical Service, Inc, to be duly in session for the transaction of business.

Dr Ortmeier moved that the reading of the minutes of the last meeting of the Corporate Body, being the 1989 annual meeting, be waived, the same having been published and mailed to each member previously. Such motion was seconded by Dr VanDemark, Jr. Upon voice vote, the same was approved unanimously.

Chairman Rossing presented the Chairman's message to the Corporate Body. He reported that as of December 31, 1989, South Dakota Blue Shield's payout on provider services represented 94.1% of premium income or \$40,253,000, which is an increase of 26.7% over the previous year. In 1989, the administrative expense declined to \$3,725,000, totaling 8.7% of earned premium. He further reported that Blue Shield's unassigned surplus has increased slightly each year. In 1987, the unassigned surplus was \$6,228,000 as compared to \$6,353,000 at the end of 1989. Such unassigned surplus at the end of 1989 was equal to 1.77 months of average monthly claims and administrative expenses.

He noted that, as in past years, the percentage of total South Dakota Blue Cross/Blue Shield premium income continues to shift more to Blue Shield, and that a number of factors are involved therein. One of the major factors has been the introduction of Medigap and Medigap Plus contracts. The enrollment in these two programs as of December 31, 1989, was 31,700 individuals, representing an increase since 1987 of approximately 19%.

It was noted that the complete Chairman's message was printed in the Delegate's Handbook.

No action being necessary on the Chairman's report, none was taken.

After completing his report, Chairman Rossing introduced the lay members on the Blue Shield Board to the Corporate Body.

Chairman Rossing called upon President Ben Johnson to review the 1989 annual report. Mr Johnson noted that each of the members was sent a copy of Blue Shield's annual statement for 1989 prior to this meeting. He highlighted certain items contained therein. He specifically mentioned that Blue Shield's premium income was \$42,797,203 and that claims paid were \$40,253,170. This means that 94.1% of premium income was paid back to providers. The previous year's payout was 92.6%. Blue Shield's underwriting loss in 1989 was \$1,181,930 and its investment income was \$1,207,614. The net gain to surplus was therefore \$20,484.

In 1988, Blue Shield processed 551,000 claims. In 1989, Blue Shield processed 702,885 claims. He asked if any member from the floor had any questions. A question was asked by Dr Richard Holm as to Blue Shield's investment program. He noted that the back of the annual report gave a listing of where the deposits are at this time.

A discussion followed with President Ben Johnson explaining to the Corporate Body Blue Shield's investment policies and the reasons therefor.

Chairman Rossing at this point of the meeting turned the gavel over to Vice-Chairman William McDermott for the work relative to the election of directors whose terms were expiring.

Jeffrey Hagen, MD, was asked to give the report of the Nominating Committee. Dr Hagen reported as follows:

The Nominating Committee appointed by the Board of Directors recommended current directors James Dunn of Lead, Thomas Krafka, MD, of Rapid City, and William Rossing, MD, of Sioux Falls, for re-election to the Board of Directors.

The Vice-Chairman called for nominations from the floor. Dr Saylor moved that the nominations be closed and a unanimous ballot be cast for the nominees. Dr Stoltz seconded the motion. Upon voice vote, the same was approved unanimously and the secretary was instructed to show a unanimous ballot thereon.

Chairman Rossing called for any further business to come before the Board. There being none, he called for a motion to adjourn the Corporate Body meeting. Dr Huber moved that the meeting be adjourned. Dr Lamb seconded the motion. Upon voice vote, the same was approved unanimously.

John Zimmer
Secretary

President's Page

I recently attended the annual AMA meeting in Chicago the last week in June. During my attendance of the legislative sessions which were held, both within the caucuses and the deliberations of the House of Delegates, it became apparent that the AMA has a difficult job representing the interests and concerns of a diverse group of members. From the great diversity between specialties, sub-specialties, geographic regions of the country, and socioeconomic differences between urban and rural areas and even within a given urban area, it is apparent that the AMA will have a difficult time being all things to all persons. However, it was apparent that the delegates in their deliberations were thoughtful, thorough, and conscientious in their debate and consideration of all of the issues brought before them. Some of the issues considered and resolutions passed consisted of the feasibility of legal recourse against pregnant women using drugs in an effort to protect their unborn infants. This obviously was a thorny issue and no action on this resolution was recommended. Other interesting discussions included the issue of economic value of human tissue which might allow donors of bone marrow or other organs to profit from donating such tissue to another recipient.

Briefly, a number of other resolutions of interest consisted of a recommendation that a surgeon rendering a second opinion in most cases should refer the patient back to the original referring physician to have the surgical procedure performed. A resolution possibly affecting the practice of rural medicine concerns reimbursement of a nurse practitioner under Medicare which presently requires the attending physician to be physically present. A resolution was passed recommending that this be changed to allow a nurse practitioner under the supervision of a physician to be reimbursed under Medicare even though the physician is not physically present at the time the nurse practitioner performs the services. Another resolution of interest to many physicians was one recommending that physicians' pension plans not be discriminated against by not exempting them from bankruptcy proceedings. The pension plans of other groups and businesses are immune from such bankruptcy proceedings and the resolution held properly that the same protection should be extended to physicians' pension plans.

A resolution proposing drug testing of MD's was defeated. The subject of pay for hospital committee work was discussed and the consensus was that probably no economic compensation would be indicated for normal hospital committee work. However, it might be permissible to reimburse staff members required to

devote an inordinate amount of time in performing quality assurance or PRO duties or in some cases chiefs of departments and/or chief of staff for their time spent in performing these more time consuming functions. Several "anti-hassle" bills including HR4475 presently under consideration by Congress were discussed, and in general, any bill eliminating unnecessary paper work, reporting the application of complex formulas in determining fees etc, was supported.

Many other resolutions too numerous to mention were considered; however, I will end this page with one resolution 232 submitted by the New York delegation concerning synthetic Bovine growth hormone. Condensed and paraphrased the resolution stated essentially, whereas the Bovine biomass in the United States is larger than the human biomass and takes up about half of the available farm land in some Latin American countries, and because millions of acres of rain forest are being destroyed to provide pasture and grazing land, and whereas the greenhouse effect is exacerbated by Bovine Flatulence (up to 400 liters per animal, per day) amounting in total to 66.6 million tons of methane discharged into the atmosphere each year thereby ranking these animals as one of the richest global sources of this gas, and following several additional whereases, be it resolved that the American Medical Association make a comprehensive assessment of the environmental, economic health, and public policy implications associated with the wide use of Bovine growth hormone. An equally humorous response to this resolution went something as follows, "the matter of Bovine growth hormone most certainly is a moooving issue." It was recommended that perhaps the scientific community should probably take the "bull by the horns" and that perhaps the subject could be considered by a "gathering of the big cheeses"; however, it was felt that the subject should not be allowed to "balloon out of proportion" and further it was felt that the dairy interests should not "cow tow" to the proponents of such legislation, which if allowed to occur, would result in "udder" disaster. However, it was decided that perhaps society did have a "prime stake" in the issue and it was, therefore, "moooved" that the resolution be passed.

#

Jerome A. Eckrich

DISTINGUISHED SERVICE AWARD

Started in 1951. . . T. F. Riggs, MD, Pierre (deceased)
1952 . . . H. Russell Brown, MD, Watertown (deceased)
1953 . . . Guy VanDemark, MD, Sioux Falls (deceased)
1954 . . . J. C. Ohlmacher, MD, Vermillion (deceased)
1955 . . . R. G. Mayer, MD, Aberdeen (deceased)
1956 . . . J. C. Ohlmacher, MD, Vermillion (deceased)
1957 . . . W. E. Donahoe, MD, Sioux Falls (deceased)
1958 . . . Drs. J. C. Hagin (deceased), M. W. Pangburn
 (deceased), and James DeGeest, Miller
1958 . . . J. F. Brenckle, MD, Superior, WI (deceased)
1958 . . . Mrs. Agnes Holdridge, Madison
1959 . . . Walter L. Hard, PhD, Vermillion
1959 . . . Rev. and Mrs. Robert O. Bates, Sturgis
1959 . . . R. M. Kilgard, MD, Watertown (deceased)
1960 . . . L. J. Pankow, MD, Sioux Falls (deceased)
1961 . . . Gregg M. Evans, PhD, Custer
1962 . . . Edward Shaw, PhD, Vermillion (deceased)
1963 . . . Arthur A. Lampert, MD, Rapid City
1964 . . . John C. Foster, Phoenix, AZ
1965 . . . A. P. Reding, MD, Marion
1966 . . . Mrs. C. Rodney Stoltz, Watertown
1967 . . . Mrs. William Fish, Watertown
1968 . . . G. J. Bloemendaal, MD, Ipswich (deceased)
1969 . . . F. W. Haas, MD, Yankton (deceased)
1970 . . . Paul Bunker, MD, Aberdeen (deceased)
1971 . . . E. T. Lietzke, MD Beresford (deceased)
1972 . . . C. B. McVay, MD, Yankton (deceased)
1973 . . . G. E. Tracy, MD, Watertown
1974 . . . J. A. Muggly, MD, Madison (deceased)
1975 . . . Harvey Wollman, Hitchcock
1976 . . . R. H. Quinn, MD, Sioux Falls
1977 . . . E. H. Heinrichs, MD, Vermillion
1978 . . . John Olson, Sioux Falls,
 and Evans Nord, Sioux Falls
1979 . . . Helen Jane Hare, MD, Rapid City
1980 . . . Warren Jones, MD, Sioux Falls
1981 . . . Saul Friefeld, MD, Brookings
1982 . . . G. Robert Bartron, MD, Watertown
1983 . . . Oscar J. Mabee, MD, Mitchell
1984 . . . Karl Wegner, MD, Sioux Falls
1985 . . . William R. Taylor, MD, Aberdeen
1986 . . . R. E. VanDemark, Sr, MD, Sioux Falls
1987 . . . Bruce C. Lushbough, MD, Brookings
1988 . . . John J. Stransky, MD, Watertown
1989 . . . John Barlow, MD, Rapid City
1990 . . . Durward Lang, MD, Sioux Falls

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1963 . . . George W. Mills, MD, Wall (deceased)
1964 . . . John C. Hagin, MD, Miller (deceased)
1965 . . . Alonzo P. Peeke, MD, Volga
1966 . . . Hugo C. Andre, MD, Vermillion (deceased)
1967 . . . G. Robert Bartron, MD, Watertown
1968 . . . M. M. Morrissey, MD, Pierre (deceased)
1969 . . . N. J. Sundet, MD, Kadoka (deceased)
1970 . . . W. H. Saxton, MD, Huron (deceased)
1971 . . . R. E. VanDemark, Sr, MD, Sioux Falls
1972 . . . R. H. Hayes, MD, Wall
1973 . . . B. F. King, MD, Aberdeen (deceased)

1974 . . . M. C. Tank, MD, Brookings
1975 . . . Karl Wegner, MD, Sioux Falls
1976 . . . John T. Elston, MD, Rapid City
1977 . . . W. F. Stanage, MD, Yankton
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1983 . . . Theodore H. Sattler, MD, Yankton
1984 . . . Paul Hohm, MD, Huron
1985 . . . George Mangulis, MD, Philip
1986 . . . Richard Friess, MD, Sioux Falls
1987 . . . Melford B. Lyso, MD, Yankton
1988 . . . Brooks Ranney, MD, Yankton
1989 . . . William R. Taylor, MD, Aberdeen
1990 . . . Reuben Bareis, MD, Rapid City

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 Walter Miller, MD, Aberdeen
1968 . . . H. Phil Gross, MD, CA

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J. C. Clark, MD, Sioux Falls (deceased)
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 1976 ... Robert Westaby, MD, Hot Springs
 1977 ... Robert VanDemark, Sr, MD, Sioux Falls
 1978 ... Howard Saylor, Jr, MD, Huron
 1979 ... J. D. Bailey, MD, Rapid City
 1980 ... John T. Elston, MD, Rapid City
 1981 ... T. H. Sattler, MD, Yankton
 1982 ... Bedford T. Otey, MD, Flandreau
 1983 ... Robert H. Quinn, MD, Sioux Falls
 1984 ... Granville Steele, MD, Aberdeen
 1985 ... Robert Hayes, MD, Wall
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 1988 ... Willis Stanage, MD, Yankton
 1989 ... Reuben Bareis, MD, Rapid City
 1990 ... Rodney Parry, MD, Sioux Falls

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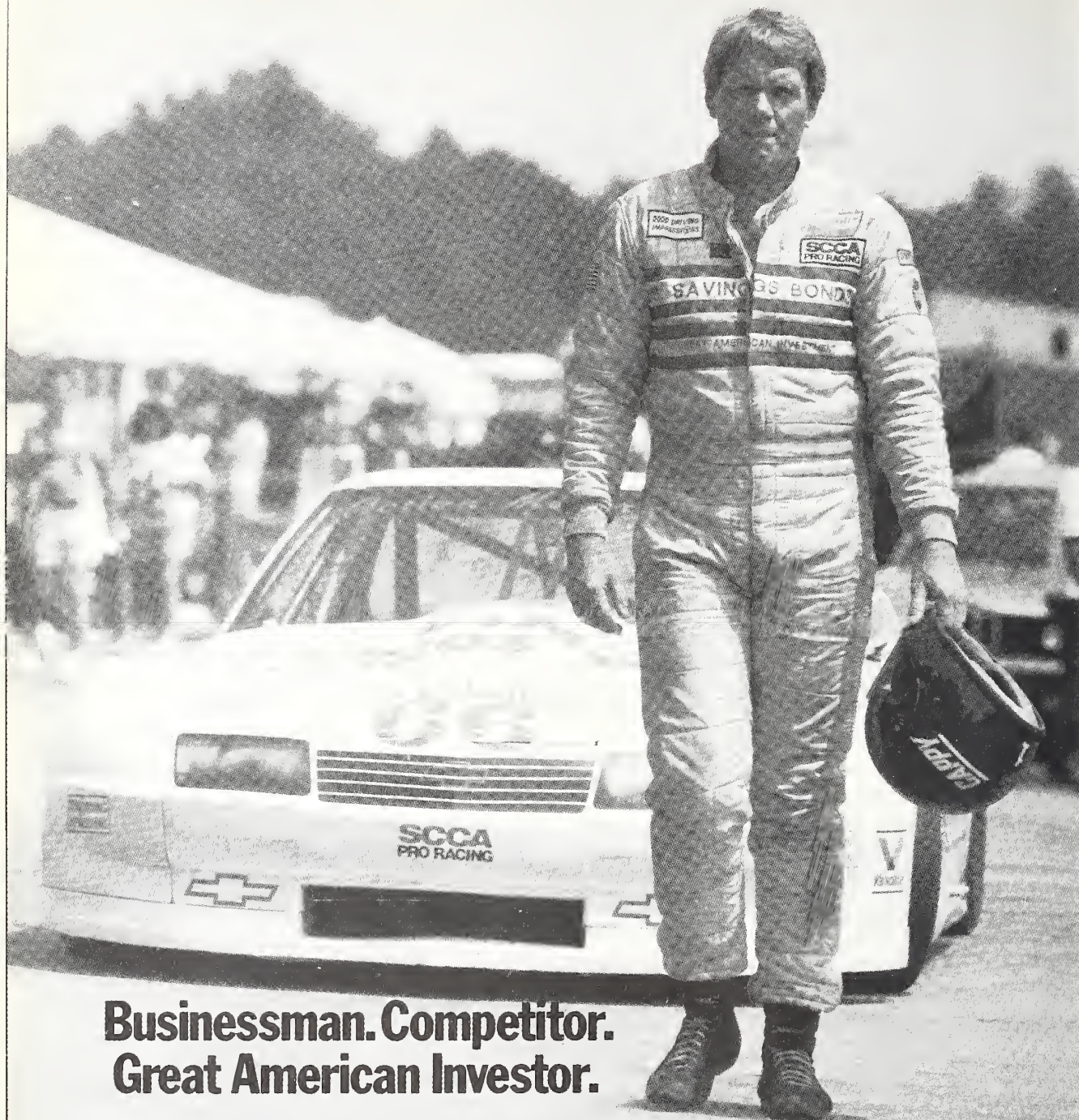
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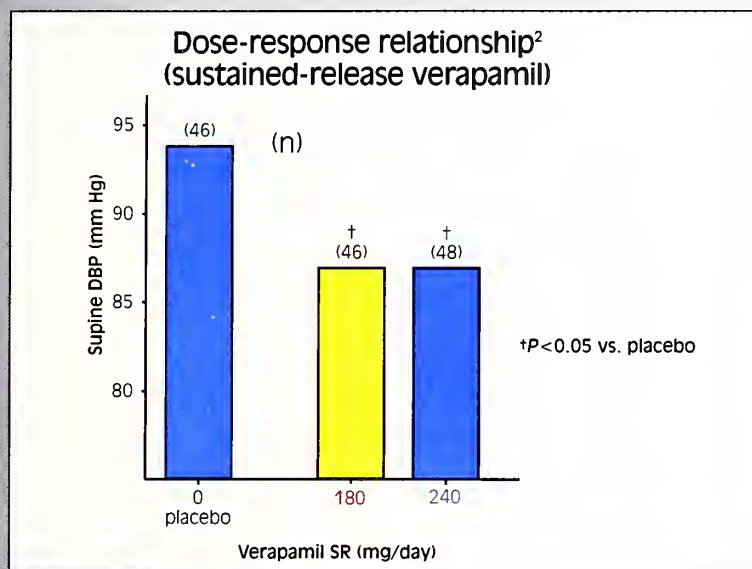


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BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°:2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

References:

1. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.
2. Data on file, G.D. Searle & Co.

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Barker, John D.Sioux Falls
Barnett, George L.Sioux Falls
Barth, Richard.....Sioux Falls
Bauer, Barry C.Sioux Falls
Belatti, Richard G.Sioux Falls
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Benson, Gail M.Sioux Falls
Benson, Margaret.....Sioux Falls
Bess, Michael A.Sioux Falls
Billion, John J.Sioux Falls
Billion, Stephen P.Sioux Falls
*Billion, Thomas J., Jr ...Sioux Falls
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Blake, Jerome.....Sioux Falls
Blue, Daniel.....Sioux Falls
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Brown, Delbert L.Sioux Falls
Bruins, George S.Sioux Falls
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Burns, Howard W.Sioux Falls
*Burns, Kendall R.Sioux Falls
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Cass, Joseph R.Sioux Falls
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Cho, MyungSioux Falls
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*Daw, Edward F.CO
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*Gregg, John B.Sioux Falls

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Han, Allen.....ID
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 *Steiner, Peter K.CA
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 *Stern, Charles A.CA
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Stanage, Willis F.Yankton
Stephenson, Daryl R.Yankton
Sternquist, John C.Yankton
Stevens, Julie C.Yankton
Thompson, Robert F.Yankton
Tidd, John T.Yankton
Tuan, Chung H.Yankton
Turner, Charles R.Vermillion
Vlach, Charles J.NE
Vlach, Steven.....NE
Wells, John M.Yankton
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Andersen, Victoria..... Hot Springs
*Anderson, A. Byford.....Rapid City
Anderson, Dale R.Rapid City
Anderson, Wayne J.Deadwood
Arnold, George H.Rapid City
Ashbaugh, James H.Deadwood
Authier, NoeRapid City
*Bailey, John D.Rapid City
Bailey, Stephen P.Rapid City
Bareis, Reuben J.Rapid City
Barlow, John F.Rapid City
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*Behrens, Clayton L.Rapid City
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Bergeron, Dale A.Rapid City
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Dzintars, Paul F.Rapid City
Ebbert, Larry P.Rapid City
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Finley, Richard C.Rapid City
Finley, RobertRapid City

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Freimark, Lyle G.Rapid City
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Frost, Harold L.Rapid City
Frost, Timothy.....Rapid City
Gebhardt, Daniel J.Spearfish
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James, Edward H.Rapid City
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Wessel, Alvin E.Rapid City
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Bell, G. RobertDeSmet
Belyea, MarkHuron
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Benson, Margaret.....Sioux Falls
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Billion, Stephen P.Sioux Falls
*Billion, Thomas J., Jr.....Sioux Falls
Binder, Clifford F.Chamberlain
Birch, FredricRapid City
Birkenkamp, Ray T.Mitchell
Bishop, Donald.....Sioux Falls
Bjordahl, Kevin L.Webster
Blake, Jerome.....Sioux Falls
Bloemendaal, Robert D.Rapid City
Bloom, AlanWebster
Blue, DanielSioux Falls
Boade, W. AllanSioux Falls

Bochna, Gary S.Rapid City
Boddicker, Marc E.Rapid City
Bolliger, Eugene.....Chamberlain
*Borgmeyer, Henry J.Rapid City
Bormes, William A.Aberdeen
*Boyce, Raymond A.Rapid City
Boyd, Rock F.Gettysburg
Boyer, David W.Rapid City
Brady, Forrest S.Spearfish
Braithwaite, Thomas M. ..Sioux Falls
*Branch, Robert F.Rapid City
Brandenburg, Verdayne ..Sioux Falls
*Bray, Robert B.Rapid City
Brechtelsbauer, David A. .Sioux Falls
*Breit, Donald H.Sioux Falls
Brewer, Marshall L.Sioux Falls
Broadhurst, Kennon E.Aberdeen
*Brookman, Bruce T.Wagner
Brown, Delbert L.Sioux Falls
Brown, Michael J.Spearfish
Brown, Russell T.Mitchell
Bruins, George S.Sioux Falls
Bruning, Gary L.Flandreau
*Brzica, Stephen M.Sioux Falls
Bubak, Gary A.Wagner
Buchholz, CaroleHuron
Buchholz, CurtisHuron
Bunker, Thomas G.Aberdeen
Burdeny, Derek.....Sioux Falls
Burgers, James W.Brandon
Burke, MichaelSioux Falls
Burkhart, Thomas J.Sioux Falls
Burnap, Donald W.Rapid City
Burnett, Raymond G.Rapid City
Burns, Howard W.Sioux Falls
*Burns, Kendall R.Sioux Falls
Burrish, Gene F.Sioux Falls
Burt, Roy G.....Aberdeen
Butz, Gerald W.Rapid City

Calhoon, Stephen L.Rapid City
*Cameron, Douglas E.Rapid City
Carleton, Richard.....Gettysburg
Carlson, Gary L.Rapid City
Carlson, Walter O.Sioux Falls
Carpenter, Mary S.Winner

Carpenter, Paul L.Sioux Falls
 Carrera, Jose.....Sioux Falls
 Carroll, Nancy L.Sioux Falls
 Carter, Peter B.Aberdeen
 Carter, Roger L.Watertown
 Cass, Joseph R.Sioux Falls
 Cavanaugh, Dennis J.Huron
 Chalmers, James H.Sioux Falls
 Chang, Joe P.Aberdeen
 Chaska, Benjamin W. Webster
 Chavier, Juan R.Aberdeen
 Chicoine, Noel D.Pierre
 Cho, Dong S.Sioux Falls
 Cho, MyungSioux Falls
 Christensen, Martin J.Mitchell
 *Christopher, JohnAberdeen
 *Church, BillSioux Falls
 Cink, Thomas M.CO
 *Clark, Bernard S.Spearfish
 *Clark, Carroll J.Watertown
 Clark, Edward T.Sioux Falls
 *Cline, James A.NC
 *Collins, E. HowardGettysburg
 Collins, James D.Mobridge
 Cornford, Raymond C.Rapid City
 Cosand, Marion R.Pierre
 Coyle, MichaelMilbank
 Craig, JamesHuron
 Crandell, Michael P.Kennebec
 Crank, Robert N.Watertown
 Crowder, Jay.....Sioux Falls
 Cruse, Joseph R.Rapid City
 Cruz, David F.Estelline
 *Cutshall, Vincent K.AR

Dahl, Robert K.Sioux Falls
 Davies, Michael L.Fort Meade
 *Daw, Edward F.CO
 Day, Richard P.Sioux Falls
 *Dean, Roscoe E. Wessington Springs
 Dean, ThomasWessington Springs
 DeClark, Robert P.Sioux Falls
 DeGeest, James H.Miller
 DeHaan, Douglas.....Sioux Falls
 *Delaney, Robert J.Mitchell
 Delaney, Thomas P.Mitchell
 *Delaney, William, JrMitchell
 Dendinger, William J.Vermillion
 Desai, Bhasker J.Watertown
 Devick, Margaret R.Canton
 Dewald, Allan L.Rapid City
 Dilger, Joseph T.Mitchell
 Dolan, DavidSioux Falls
 *Donahoe, John W.Sioux Falls
 Drummond, Ronald G.Rapid City
 Drymalski, Walter G.Sioux Falls
 D'Souza, Edward P.Aberdeen
 Durr, SamuelRapid City
 Dzintars, Egon F.Rapid City
 Dzintars, Paul F.Rapid City
 Dzintars, Valdis A.Sioux Falls

Easton, Jessie K. M.Sioux Falls
 Ebbert, Larry P.Rapid City
 Eckhoff, P. JamesSioux Falls
 Ecklund, Scott W.Sioux Falls
 Eckrich, Jerome A., JrAberdeen
 *Eirinberg, Isadore D.Sioux Falls
 Elkjer, Neil J.Sioux Falls
 Ellerbusch, David A.Aberdeen
 Elson, David L.Sioux Falls
 *Elston, John T.Rapid City
 Engelbrecht, James A.Rapid City
 English, Gilbert L.Sioux Falls
 *Ensberg, Dorence L.Sioux Falls
 Entwistle, FrederickSioux Falls
 Epp, Dennis L.Freeman
 Erickson, David K.Dell Rapids
 Erickson, Gregory.....Sioux Falls
 Erickson, KirstenSioux Falls

*Fahrenwald, Myron E.Conde
 Falk, AlexAberdeen
 Famestad, GarySioux Falls
 *Farrell, Harry W.Sioux Falls
 Farritor, Michael E.Sioux Falls
 Farver, MaxYankton
 *Fedt, Donald N.Watertown
 Feeney, Steven P.Watertown
 Fenton, Lawrence J.Sioux Falls
 Ferrell, Michael R.Sioux Falls
 Ferrell, Robert L.Rapid City
 Ferrell, Robert T.Yankton
 Fetters, Barbara R.Hot Springs
 Fiegen, Michael M.Sioux Falls
 Fields, BillySturgis
 Finley, Richard C.Rapid City
 Finley, RobertRapid City
 Finley, Victoria Kisters....Rapid City
 Finney, Lawrence W.Sioux Falls
 Fisher, Steven E.Custer
 *Fisk, Robert G.Flandreau
 Fletcher, Harold J.Vermillion
 Flohr, Charles E.Mitchell
 Flom, Jon O.Yankton
 Flora, George C.Sioux Falls
 Foley, Robert J.Tyndall
 Foley, Stephen T.Sioux Falls
 Foss, J. Frank.....Sioux Falls
 Frank, John J.Yankton
 Franz, DanielRapid City
 Freeman, Jerome W.Sioux Falls
 Freimark, Lyle G.Rapid City
 *Friefeld, SaulMN
 Friess, Richard W.Sioux Falls
 Fritz, John R.Aberdeen
 Fromm, Harold E.Rapid City
 Frost, Donald M.Sioux Falls
 Frost, Harold L.Rapid City
 Frost, Timothy.....Rapid City
 Fuller, William C.Sioux Falls
 Fumia, Fred D.MI

Gaede, James E.Mitchell

Gale, Scott A., JrHuron
 Gebhardt, Daniel J.Spearfish
 Gehring, Stephen H.Watertown
 Geise, DouglasSioux Falls
 George, Robert J.Sioux Falls
 Gerber, Bernard C.Aberdeen
 Gerber, Jean L.Aberdeen
 Gere, Richard G.Mitchell
 Gerrish, Catherine C.Watertown
 Gerrish, Edwin S.Watertown
 Giebink, Robert R.Sioux Falls
 *Gilbert, Freeman J.Belle Fourche
 Gill, Timothy J.Rapid City
 Gillis, Floyd D., Jr.Mitchell
 Gilmore, Howard T.Yankton
 Gridhar, SanjeeviAberdeen
 Giuseffi, Steven A.Spearfish
 Golliher, Warren N.Spearfish
 Goodhope, Robert C.Fort Meade
 Graff, Randall P.Deadwood
 Graham, Donald B.Sioux Falls
 Gray, John R.Sioux Falls
 Green, Marc A.Sioux Falls
 *Greenfield, Duane L.Sioux Falls
 *Gregg, John B.Sioux Falls
 Groeger, ThomasDeadwood
 Groot, Curtis A.Rapid City
 Groote, H. PhilCA
 *Grove, M. StuartSioux Falls
 Gryte, Clifford F.Huron
 Gunderson, Dale E.MN
 Gunnarson, Richard E.Sioux Falls
 *Gutch, Charley F.Sioux Falls
 Gutnik, Leonard M.Sioux Falls
 Gutnik, Steve H.Sioux Falls
 Gwinn, Charles B.Fort Meade

Haas, Stephen N.Rapid City
 Habbe, DonaldSioux Falls
 Hafner, Daniel J.Rapid City
 Hagen, Jeffrey B.Sioux Falls
 Haley, Michael D.Mitchell
 Hall, BarbaraSioux Falls
 Halliday, David J.Custer
 Halma, GarySioux Falls
 Halverson, KennethYankton
 *Hamm, Joseph N.Sturgis
 Han, AllenID
 Hanna, MarwinSioux Falls
 Hansen, Craig K.Rapid City
 Hansen, LoriYankton
 Hanson, Bernie H.P.Watertown
 Hanson, George R.Custer
 Hanson, Jeffrey W.Huron
 Hanson, William O.Huron
 Hardie, Richard D.Sioux Falls
 *Hare, Helen JaneRapid City
 Harlow, Mark C.Aberdeen
 Harms, Robert W.Sioux Falls
 Harris, Frederick L.Sioux Falls
 Harris, Mary H.Sioux Falls
 Harris, Russell H.Sioux Falls

Hart, Charles E.Rapid City
Hart, Harvey J.Aberdeen
Hartmann, Alfred E.Sioux Falls
Hartzell, Allan J.Sioux Falls
Hassan, Adel A.F.Madison
Hata, Steven K.Rapid City
Hayes, Craig R.Deadwood
Hayes, Robert H.Wall
Head, StephenMobridge
Heck, Louis J.Yankton
Heidorn, Richard.....Armour
Heilman, Bernard F..... Madison
Heinemann, Daniel J.Canton
Heinemann, Phyllis E.....Aberdeen
Heinrichs, Eberhard H.....Vermillion
Heirigs, Ralph A.Rapid City
Heisinger, Randolph W.....Aberdeen
Held, William E.Sioux Falls
Henderson, Ben J.Mobridge
Henrickson, Lynn A.Sioux Falls
Henrickson, Robert G..... Sioux Falls
*Henry, Robert B.Brookings
Herbst, John W.....Rapid City
Hercules, Costas.....Rapid City
Herlihy, John J.Rapid City
*Hermann, Harland T., SrRapid City
Hermann, H. Thomas, JrSturgis
*Hermanson, John M.Brandon
Herrin, Gerald R.Pierre
Hewitt, Gregory..... Belle Fourche
Hewitt, John M.Rapid City
Hicks, TerryEllsworth AFB
Hill, LaurieSioux Falls
Hockett, Richard D.Mitchell
*Hofer, Emil A.Huron
Hoffman, Wendell W.Sioux Falls
Hoffmann, Jay W.IA
Hoffsten, Phillip E.Pierre
Hogue, Michael E.Sioux Falls
Hohm, Byron T.Sioux Falls
Hohm, Paul H.Huron
Hohm, Robert C.Huron
*Hohm, Theodore A.Huron
Holkesvick, Reid E.Aberdeen
Holland, Lambert W..... Chamberlain
Holm, Richard P.Brookings
Holzwarth, David R.....Yankton
Honke, Richard W., II.....Parkston
Honke, Sandra J.Rapid City
Horner, William J.Sioux Falls
Horning, James R.Watertown
Hosen, Richard S.Sioux Falls
Hoskins, John H.Sioux Falls
Hoversten, David L.Sioux Falls
Hovland, James I.....Aberdeen
Howard, William J.Rapid City
Howe, Jerome K.Mitchell
Hoxtell, Eugene O.Sioux Falls
Huber, Joel B.Redfield
Huber, Thomas J.....Pierre
Hubner, Jay W.Yankton
*Huet, William G.M.Huron

Hughes, Howard D.Clear Lake
Humphreys, Donald W.Sioux Falls
Huot, Samuel W.Rapid City
*Huppler, Edward G.....MN
Hurley, Brian T.Sioux Falls
Hurley, DominicSioux Falls
Hurley, Timothy E.....Sioux Falls
Hussain, Rif'at.....Sioux Falls
Hyland, Lowell J.Sioux Falls

Ingvaldstad, James P.....Sioux Falls
Isburg, Carroll D.....Yankton
Iverson, Gregory J.....Rapid City

Jackson, James W.Rapid City
Jacobs, Tad B.Flandreau
Jacobson, Theodore R. Hot Springs
Jahraus, R. Curtis.....Pierre
James, Edward H.Rapid City
Jameson, G. MalcolmYankton
*Janavs, VisvaldisFL
Janis, John B.Sioux Falls
Janss, Gerti J.Rapid City
Janss, William B.Rapid City
Janusz, Albin J.Aberdeen
Jagua, Richard A.Sioux Falls
Jarmuskewicz, James R.Rapid City
Javurek, Anthony J.Sioux Falls
Jenny, David.....Yankton
Jenter, George W.Sturgis
Jentes, Paul K.Sturgis
Jerde, O. Myron..... Fort Meade
Johnson, Dave R.Rapid City
Johnson, Dennis L.Sioux Falls
*Johnson, Edward A.Milbank
Johnson, Jorge H.Sioux Falls
Johnson, R.C.Sioux Falls
Johnson, Robert K.Rapid City
Johnson, Thomas K.Aberdeen
Johnson, Virginia P.Vermillion
Jones, David B..... Platte
Jones, James A.Watertown
Jones, John B.Chamberlain
Jones, Warren L.Sioux Falls
*Jones, William E.Sturgis
*Judge, John O.WA
Justice, Michael W..... Dell Rapids

Kalda, Ellison F.Platte
Kalda, Ellison F., II.....Sioux Falls
Kangley, Daniel J.Sioux Falls
Kapur, Hiroo R.Huron
Kapur, RaviHuron
Karlen, Louis W.DeSmet
Kass, JosephRosholt
Kaufman, Irvin I.Freeman
*Kelley, Donald H.Deadwood
Kelts, K. Alan.....Rapid City
Kemp, Earl D.Sioux Falls
Kennelly, Daniel J.Sioux Falls
Keppen, Bruce.....Aberdeen
*King, Lyndon M., JrSioux Falls

King, Patrick H.Yankton
Kitowski, Theodore.....Brookings
*Kittelson, H. OtisSioux Falls
Klar, WernerFort Meade
Knecht, John F.Hot Springs
*Knowles, Roy C.Sioux Falls
Knowles-Smith, PeterND
Knudson, Donald H.Sioux Falls
Knutson, Dennis D.Sioux Falls
Knutson, Roger S.Rapid City
Kocourek, Bruce W.Parkston
*Kohlmeier, Frederick C. Sioux Falls
Kom, Carlton J.Aberdeen
Koob, K. GeneSioux Falls
*Koren, Paul H.Rapid City
Kosina, ThomasWinner
Kosse, Karl H.Aberdeen
Kovarik, Joseph A.Rapid City
Kovarik, Richard A.Rapid City
Kovarik, Stephen M.....Rapid City
Kovarik, Wenzel J.Rapid City
Krafka, Thomas L.Rapid City
Kramer, Charles G.Lower Brule
Kucera, Todd.....Sioux Falls
Kullbom, James B.Rapid City
Kundel, DavidAberdeen
Kunkel, Shirley.....Sioux Falls
Kunkel, SteveSioux Falls
Kunz, James A.Rapid City
Kurch, Julie AnnHuron
Kwan, Francis P.Rapid City

Lakstigala, Peters E.....Sioux Falls
Lamb, Marlin R.Watertown
*Lampert, Arthur A., Jr ...Rapid City
*Lampert, Arthur A., Sr ...Rapid City
Lang, Durward M.Sioux Falls
Lang, Terry A.Sioux Falls
Lankhorst, Barry J.Sioux Falls
Laput, Aleksandra M.Sioux Falls
*Lardinois, Clifford C., SrHuron
Larsen, DavidSioux Falls
Larsen, Laura J.R.Sioux Falls
Larson, James C.Watertown
Larson, Leland J.Sioux Falls
Larson, Paul M.Watertown
Lauer, David A.Sturgis
Lee, Si Gaph.....Sioux Falls
*Leon, Paul R.Aberdeen
Lewis, Charles A.Sturgis
Liedtke, Curtis J.Sturgis
Likness, Clark W.Watertown
Lindbloom, BrentPierre
Lindbloom, Buron O.Pierre
Linde, Leonard M.Mobridge
Linn, BernardPierre
Liudahl, JeffreyYankton
Looby, Thomas L.Sioux Falls
Loos, Charles M.Rapid City
Lord, Charles J.....Rapid City
Lorenzen, KimMitchell
Luebke, MarlysCorsica

Lushbough, Bruce C.Brookings
 Luzier, Thomas L.Aberdeen
 Lyso, Melford B.Yankton

Mabee, Judson O.Mitchell
 Mabee, Lee M.Sioux Falls
 *Mabee, Oscar J.Mitchell
 MacRandall, Daniel G.Sioux Falls
 Madison, Dean L.Sioux Falls
 Magidson, Melvin A.Sioux Falls
 Magnuson, Gregory L.Sioux Falls
 Malm, John A.Gregory
 Malters, David T.Mitchell
 Malters, Patricia B.Mitchell
 Mangulis, George J.Philip
 Maningas, PeterRapid City
 Manlove, StephenRapid City
 *Maresh, Everett R.Sioux Falls
 Margallo, Lucio N., IIMitchell
 Mark, Curtis L.Viborg
 Massa, Lawrence L.Sturgis
 Masterson, Thomas E.Sioux Falls
 Mathews, Michael J.Rapid City
 *Mattson, William J.Rapid City
 McClafflin, RichardSioux Falls
 McFee, JohnBowdle
 McGee, Robert C.Aberdeen
 McGrann, James R.Sioux Falls
 McGreevy, Patrick S.Sioux Falls
 McGuigan, Patrick M.Rapid City
 McHale, MichaelSioux Falls
 *McHardy, Bryson R.Aurora
 *McIntosh, George F.Eureka
 McKercher, Scott W.Sioux Falls
 McKichan, John M.Aberdeen
 McVay, Michael R.Yankton
 McWhirter, Robert E.Mitchell
 Mendoza, Enrique F.Aberdeen
 *Merryman, Murlin P.Rapid City
 Messner, Frank D.Yankton
 Meyer, Larry A.Yankton
 Meyer, Robert D.Sioux Falls
 Meyer, Robert J.Watertown
 Meyer, Vaughn H.Sioux Falls
 Mikkelsen, BethSioux Falls
 Millea, Roger P.Rapid City
 Mills, K. AlanYankton
 Minton, Timothy P.Rapid City
 Moench, Jerry L.Sioux Falls
 Mogen, Mark P.Aberdeen
 Mohler, Charles W.Sioux Falls
 Monfore, James E.Miller
 Monson, Charles D.Parkston
 Morris, Alan D.Sioux Falls
 Mortimer, Sam L.Rapid City
 *Mueller, Eric H.Tripp
 Munson, David P.Sioux Falls
 *Munson, H. BenjaminRapid City
 Murphy, Karla K.Sioux Falls
 Murray, Jeffrey A.Sioux Falls
 Mutch, Milton G., Jr.Sioux Falls
 Myrmoe, Arlin M.Aberdeen

Naughton, GregorySioux Falls
 Neidich, Gary A.Sioux Falls
 Nelimark, Robert A.Sioux Falls
 Nelsen, MarciaYankton
 Nelson, Earl G.Viborg
 Nelson, Lawrence F.Webster
 Nelson, Parry S.Watertown
 Nelson, Richard A.Sioux Falls
 Nelson, Robert E.Sioux Falls
 Nemer, Raymond G.Gregory
 Nesbit, DennisRapid City
 Neu, Norman D.Rapid City
 Neubauer, Jo MarieYankton
 Neumayr, Robert J.Yankton
 Newman, HarryPine Ridge
 Nice, Richard F.Sioux Falls
 Nicholas, George A.Huron
 Nielsen, James L.Dell Rapids
 Nipe, HollisWatertown
 Nixon, Robert B.Rapid City
 *Nolan, Bernard P.Mobridge
 Nord, Allen E.Rapid City
 Nord, Wesley J.Sioux Falls
 Nordstrom, Donald G.Sioux Falls

Oakland, James A.Sioux Falls
 O'Brien, Charles P.Sioux Falls
 O'Brien, KristinRapid City
 O'Brien, Peter J.Sioux Falls
 Ochsner, John A.Sioux Falls
 O'Dell, Ruth M.Deadwood
 Odland, Winston B.Aberdeen
 Oey, David L.T.Sisseton
 Ofstein, Lewis C.Sioux Falls
 Ogden, BruceSioux Falls
 Ohrt, David W.Sioux Falls
 Olegario, Filemon E., Jr.Mitchell
 Oliver, Donald E.Rapid City
 Olson, Jennifer J.Sioux Falls
 Olson, Michael L.Sioux Falls
 Olson, Steven P.Sioux Falls
 Olson, Thomas H.Vermillion
 *Opheim, Warren L.Sioux Falls
 Opheim, Warren O.V.Sioux Falls
 Oppenheimer, MarkSioux Falls
 Orr, Russell T.Sioux Falls
 Ortmeier, Denny G.Sioux Falls
 Ostby, Jason R.Watertown
 Ostrowski, Susan M.Eureka
 O'Sullivan, JohnBelle Fourche
 *Otey, Bedford T.Flandreau
 Ottenbacher, JohnSelby
 *Owen, Gordon S.Rapid City
 Owens, Leycester, Jr.Sioux Falls

Palmerton, Ernest S.Rapid City
 Papendick, LewRapid City
 Park, Dai H.Pierre
 Parker, Jeffrey C.Spearfish
 Parry, Rodney R.Sioux Falls
 *Pasek, Edward A.Sioux Falls
 *Patt, WalterAR

Patterson, David M.Redfield
 Paul, K-LynnSioux Falls
 Payne, Harlan A.Sioux Falls
 Pederson, Kim A.Sioux Falls
 *Peeke, Alonzo P.Volga
 *Peik, Donald J.FL
 Pekas, Michael W.Sioux Falls
 *Perry, William J.Rapid City
 Pesce, UlisesYankton
 *Petereit, Martin F.Sioux Falls
 Peters, Edward H.Sioux Falls
 Peters, Patricia A.Sioux Falls
 Peterson, Jeffrey L.MN
 Peterson, Karl G.Sioux Falls
 Peterson, Kenneth B.Watertown
 Peterson, Linda R.Watertown
 *Petres, AnthonySalem
 Picardi, EdwardRapid City
 Piro, David F.Watertown
 Pitt-Hart, Barry T.Sioux Falls
 Plummer, Richard L.Sioux Falls
 Pomeroy, HowardIA
 *Porter, MaynardParkston
 Porter, Richard I.Yankton
 Potas, David G.Yankton
 Preston, RobertRapid City
 *Price, RonaldArmour
 Purdy, Drew A.Rapid City
 Purintun, ScottBritton
 Putnam, Wesley D.Sioux Falls

*Quinn, Robert H.Spearfish

Radack, Morris L.Yankton
 Ramig, Susan W.Aberdeen
 Ramos, Manuel D.Scotland
 Ramsay, John D.Brookings
 Randall, Bradley B.Sioux Falls
 Ranney, BrooksYankton
 Raskowski, Robert R.Sioux Falls
 *Reagan, James L.Garretson
 Reaney, Duane B.Yankton
 Reding, Arthur P.Marion
 Redmond, Warren J.Aberdeen
 Reed, Richard C.Sioux Falls
 Regier, Eugene R.Canton
 Reinertsen, Karen J.Sioux Falls
 *Reinoehl, Warren L.Custer
 Renka, Richard P.Rapid City
 Retterath, PatrickAberdeen
 Reynolds, James R.Sioux Falls
 Rhoades, Marques E.Yankton
 Richards, George A.Sioux Falls
 Ridge, CharlesMobridge
 Ries, Dennis D.Freeman
 *Riesberg, ElsaTX
 Rietz, Robert R.Brookings
 Rittmann, John E.Watertown
 Robbins, John K.Sioux Falls
 Roberts, Bob H.Spearfish
 Roberts, Charles S., Jr.Brookings
 Robinson, MichaelSioux Falls

*Rodine, John C.Aberdeen
 Rodman, Peter K.Sioux Falls
 Rogotzke, Kenneth H.Watertown
 Rolfsmeyer, Eric S.Sioux Falls
 Rosario, Elmo J.Rapid City
 Roseth, Calvin.....Watertown
 Rossing, David R.Sioux Falls
 Rossing, William O. Sioux Falls
 Rost, Michael C.Sioux Falls
 Rowe, Lynn B.Mobridge
 Rud, James A.Rapid City
 *Ruud, Edward T.Rapid City
 Ryan, James E.Sioux Falls
 Rydberg, Mitchel L.Dell Rapids

Sabow, John D.Rapid City
 Salamanca, JoseMartin
 Salem, Anthony G.Sioux Falls
 Sall, John C.Sioux Falls
 Salmela, Steven R.Sioux Falls
 Saloum, Herbert A.Tyndall
 Sample, Richard G.Madison
 Sanchez, Gonzalo M.Sioux Falls
 *Sanders, Mary E.Redfield
 Sanderson, Everett W.Sioux Falls
 Sandvik, David E.Rapid City
 Sanmartin, Jorge E.Rapid City
 Saoi, Nicasio B.Yankton
 Sattler, Theodore H.Yankton
 Saxena, Satish C.Brookings
 Saylor, Howard L., Jr Huron
 *Schabauer, Ernest A.Mitchell
 Schad, C.S.Rapid City
 Schafer, Larry W.Sioux Falls
 *Scheffel, Alvin R.Redfield
 *Scheller, Donald L.Arlington
 Schellpfeffer, DonaldSioux Falls
 Schramm, MelanieBurke
 Schroeder, GregSioux Falls
 Schroeder, Stephan D.Miller
 Schuft, JamesFort Meade
 Schultz, Gregory A.Sioux Falls
 Schultz, Richard D.Sioux Falls
 Schultz, Thomas A.Sioux Falls
 Schurrer, MichaelRapid City
 Seaman, DavidAberdeen
 *Sebring, Floyd U.CA
 Seeman, TerryWatertown
 Seidel, Robert R.Sioux Falls
 Seljvar, Joseph P.Rapid City
 Seljeskog, Edward L.MN
 Shafer, CharlesSioux Falls
 Shaskey, Robert E.Brookings
 Shinghal, KumudAberdeen
 Shining, H. StreeterRapid City
 Shives, AaronWatertown
 Shousha, AlfredBritton
 Shreves, Howard B.Sioux Falls
 Simmons, Jerry L.Sioux Falls
 Sittner, LarrySioux Falls
 Skelly, Milton E.AL
 *Skogmo, Bernhoff R.Mitchell

Slama, David D.Rapid City
 Slattery, Mary T.Sioux Falls
 Slingsby, J. GeoffreyRapid City
 *Slingsby, John B.Rapid City
 Smith, David A.Yankton
 *Smith, George W.Sioux Falls
 Smith, Michael R.Sioux Falls
 Smith, Richard N.Huron
 Smith, R. McLeanSioux Falls
 Snyder, Wayne E.Watertown
 Solberg, Lloyd E.Sioux Falls
 Sorrels, William F.Mitchell
 Soye, Andrew I.Sioux Falls
 Spears, Barbara K.Pierre
 Sperle, GregoryMN
 Sprik, CalvinYankton
 *Stahmann, Fred S.Sioux Falls
 Stanage, Willis F.Yankton
 Stassen, Michael D.Sioux Falls
 Statz, MichaelRapid City
 Steele, Granville H.Aberdeen
 Steidl, Lester J.Sioux Falls
 *Steiner, Peter K.CA
 Stensland, Vernon H.Sioux Falls
 Stensrud, Homer J.Sioux Falls
 Stephenson, Daryl R.Yankton
 *Stern, Charles A.CA
 Sternquist, John C.Yankton
 Steska, StephenWatertown
 Stevens, Dennis C.Sioux Falls
 Stevens, Julie C.Yankton
 *Stewart, Richard E.Sturgis
 Stiehl, Robert L.Winner
 Stoltz, C. RogerSioux Falls
 Stout, Stephen Y.Pierre
 Strand, Ray D.Rapid City
 Stransky, John J.Watertown
 Suga, Robert C.Watertown
 Sutliff, Willis C.Rapid City
 Suurmeyer, Robert D.Aberdeen
 Swanson, Charles L.Pierre
 *Sweeny, William T.OR
 Sweet, Edwin P.Burke
 Swisher, Lowell P.Kadoka

Tackett, Daniel M.Rapid City
 Talley, Robert C.Sioux Falls
 Tam, Guy E.Sioux Falls
 Tan, Raymundo T.Aberdeen
 *Tank, Myron C.Brookings
 Taylor, BenjaminEllsworth AFB
 *Taylor, William R.Aberdeen
 Tesch, Ronold R.Brookings
 Theissen, Hubert H.Rapid City
 Thomas, DavidSioux Falls
 Thomas, Melvin W.Sioux Falls
 Thompson, M. GeorgeWatertown
 Thompson, Marion C.Watertown
 Thompson, Robert F.Yankton
 Tidd, John T.Yankton
 Tieszen, Arden J.Pierre
 Tieszen, Jerel E.Sioux Falls

Timmerman, GaryWatertown
 Tjarks, BrianMitchell
 Tobin, Gregg M.Winner
 Tobin, Michael D.Sioux Falls
 Tracer, Charles L.Rapid City
 Tracy, Gerald E.Watertown
 Traub, DouglasRapid City
 Travers, HenrySioux Falls
 Trinidad, Reuben B.Deadwood
 Tschetter, Loren K.Sioux Falls
 Tschetter, Richard T.Sioux Falls
 Tschetter, William R.Rapid City
 Tuan, Chung H.Yankton
 Turner, Charles R.Vermillion
 Turner, GeraldMadison

Uken, Patsy A.Sioux Falls
 Urbatsch, Susan E.IA

Vanadurongvan, KanyaMilbank
 Vanadurongvan, VichitMilbank
 VanDemark, Robert, JrSioux Falls
 VanDemark, Robert, Sr....Sioux Falls
 VanderWoude, JohnSioux Falls
 VanderWoude, Larry B. ...Sioux Falls
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Auxiliary News



Jacalyn Slingsby, President, South Dakota State Medical Association Auxiliary

A favorite friend of mine sent me a card depicting a frantic woman on the cover exclaiming, "I'm too busy to call! I'm too busy to visit! I'm too busy to write a letter!" Inside, the message read, "However, I've managed to find seven hours to stand around reading all the greeting cards."

How often can we all identify with this? Each year the pace of life seems to accelerate as we try to fill our lives with more activities and seize more opportunities. This often makes it difficult to prioritize those activities which are truly meaningful and significant. I know this is how I felt as I began the Auxiliary news article because so much has occurred, both personally and for the Auxiliary, this past month.

At the beginning of June, our annual meeting was held in Rapid City and our State Auxiliary officers for the new year were installed by our visiting National guest and current President of the AMA Auxiliary, Norma Skoglund. The convention was a wonderful opportunity for many of us to get to know her and also feel closer to our National office. She is very personable and made herself readily available to us. Our convention theme was the Gay '90's and the Ladies Annual Luncheon and the AMA-ERF Fund Raiser and the Annual Banquet were all gay events. TRASH provided the entertainment for our AMA-ERF auction and the Annual Banquet was highlighted by the Serendipity Singers. For Karen and Mike Pekas, the convention was the culmination of the great jobs both have done as co-presidents of our State Auxiliary and State Medical Society. Their leadership did provide a more unified

working relationship for the two organizations and their dedication was both admirable and notable and will be appreciated for a long time.

The second major Auxiliary event was the National Annual Meeting held in Chicago in conjunction with the AMA Annual Session. Helen Eckrich, Mollie O. Krafka, Ruth Parry and I represented South Dakota as our delegates. It was, as usual, a very well organized meeting featuring many notable speakers including officers of the AMA, Congresswomen, the Surgeon General, authors and newscasters. Also featured were highlights of interesting Auxiliary activities occurring throughout the states, awards for exceptional achievement in fund raising for AMA-ERF and membership and resolution hearings. South Dakota fared well in both maintaining our third delegate and in our fund raising efforts for AMA-ERF. Our state received an award for the third largest per capita contributions to AMA-ERF. Quite an achievement considering the small number of physicians and spouses in our sparsely populated state! The record for the total AMA-ERF contributions was also broken. This was the first year over two million dollars was raised for the American Medical Association Education and Research Foundation indicating that nationally we are all working hard to preserve quality medical education. The Auxiliary delegates also met with the South Dakota Medical Society delegates for two dinners which allowed us time to share some of the ideas and information we had gained throughout our inspiring meetings. What a wonderful experience!

I hope all of you are enjoying a wonderful summer filled with activities that will provide lasting memories for your family and friends. See you in September. #

Jacalyn Slingsby

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¹ FDA survey, "Patient Receipt of Rx Drug Information", 1983

² A Study of Attitudes, Concerns, and Information Needs for
Rx Drugs and Related Illnesses, CBS Television Network
Consumer Model Survey, 1983

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The contact person at the Journal office is Jeri Spars, (605) 336-1965.

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15th Annual South Dakota Perinatal Association Conference

"Perinatal Care: Working Toward a Common Goal", will be held September 13-14, 1990 at the Ramkota Inn, Sioux Falls, South Dakota.

Guest faculty include: Herman Hein, MD, University of Iowa; Bruce Buehler, MD, University of Nebraska Medical Center; Harry Wilson, MD, The Denver Children's Hospital, Denver, CO; Barbara Yawn, MD, University of Minnesota. Continuing Medical Education for physicians and nurses will be available.

For further information contact:

Debbie Meyer
SDPA
1100 South Euclid
Sioux Falls, SD 57105
(605) 333-7155

Future Meetings

September

3rd Annual Clinical Management of Osteoporosis, Minneapolis Metrodome Hilton, Minneapolis, MN, Sept 7. Fee: \$50. 6.5 hrs AMA Category I credit. Contact: Registrar, Off of Academic Affairs, 701 Park Ave, Suite 4512, Minneapolis, MN 55415. Phone: (612) 347-2078.

3rd Annual Digestive Diseases Symposium, U of Neb at Lincoln, NE, Sept 8. CME credit avail. Contact: Sally O'Neill, Ph.D, Creighton U School of Med, CME Div, 2500 California St, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

15th Annual South Dakota Perinatal Association Conference, Perinatal Care: Working Toward a Common Goal, Ramkota Inn, Sioux Falls, SD Sept 13-14. CME credit avail. Contact: Debbie Meyer, SDPA, 1100 S Euclid, Sioux Falls, SD 57105. Phone: (605) 333-7155.

Advances in the Management of Gynecologic Cancer, Kiewit Conf Ctr, Omaha, NE, Sept 14. CME credit avail. Contact: Sally O'Neill, Ph.D, Creighton U School of Med, CME Div, 2500 California St, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

Pain Management Strategies, Pillsbury Aud, Hennepin County Med Ctr, Minneapolis, MN, Sept 14. Fee: \$95. 7 hrs AMA Category I credit. Contact: Frances Ewing, Registrar, Hennepin County Med Ctr, Off of Academic Affairs, 701 Park Ave, S, Suite 4512, Mailcode #865, Minneapolis, MN 55415. Phone: (612) 347-2075.

Emergency Medicine Review, Center for Cont Educ, U of Neb Med Ctr, Omaha, NE, Sept 24-29. Contact: Marge Adey, Coord CME, U of Neb Med Ctr, Ctr for Cont. Educ, 600 S 42nd St, Omaha, NE 68198-6100. Phone: 1-800-228-9630.

October

Pediatric Update for Primary Care Physicians, Holiday Inn East, St Paul, MN, Oct 4-5. Fee: \$165. 10 hrs AAFP & AMA Category I credit. Contact: Registrar, CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Gastroesophageal Reflux Disease: Medical Versus Surgical Therapy, Embassy Suites, Omaha, NE, Oct 6. CME credit avail. Contact: Sally O'Neill, Ph.D, Creighton Univ School of Med, CME Div, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

Brain, Behavior & Biology: The Interface, Minn. World Trade Conf Ctr, St Paul, MN, Oct 12. Fee: \$125. 6.5 hrs AAFP & AMA Category I credit. Contact: Registrar, CME, St

Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

58th Annual Postgraduate Assembly, Red Lion Inn, Omaha, NE, Oct 25-27. Contact: Lorraine E. Seibel, Exec Sec, Omaha Mid-West Clinical Society, 7363 Pacific St, #205-B, Omaha, NE 68114. Phone: (402) 397-1443.

5th Annual A Day with the Perinatologists, Holiday Inn/Old Mill, Omaha, NE. 12 hrs AAFP & AMA Category I credit. Contact: Sally O'Neill, Ph.D, Creighton U School of Med, CME Div, 2500 California St, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

November

Untie the Elderly, Holiday Inn Central, Omaha, NE, Nov 1, 1990. Contact: Marge Adey, Coord CME, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-6100. Phone: 1-800-228-9630.

National Institute on Health Care Leadership and Management, Westin Hilton Head Resort, Hilton Head Island, SC, Nov 13-16. 6-28 hrs CME credit. Contact: The Am College of Phys Exec, Suite 200, 4890 W Kennedy Blvd, Tampa, FL 33609-2575. Phone: (813) 287-2000.

Clinical Strategies in Primary Care, St Paul-Ramsey Med Ctr, St Paul, MN, Nov 15-17. CME credit avail. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Psychiatric Medicine in the 90's, The Emergence of Consultation/Liaison Psychiatry, The Pointe, Squaw Peak, Phoenix, AZ, Nov 15-18. Contact: Exec Dir, APM, 5824 N Magnolia, Chicago, IL 60660. Phone: (312) 784-2025.

2nd Annual Family Practice Update, Ramkota, Pierre, SD, Nov 16-17. Fee: \$100-SDOA mem; \$115 non mem; resident, students-no chg. CME credit avail. Contact: David Lauer, 981 E Main St, Sturgis, SD 57785.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

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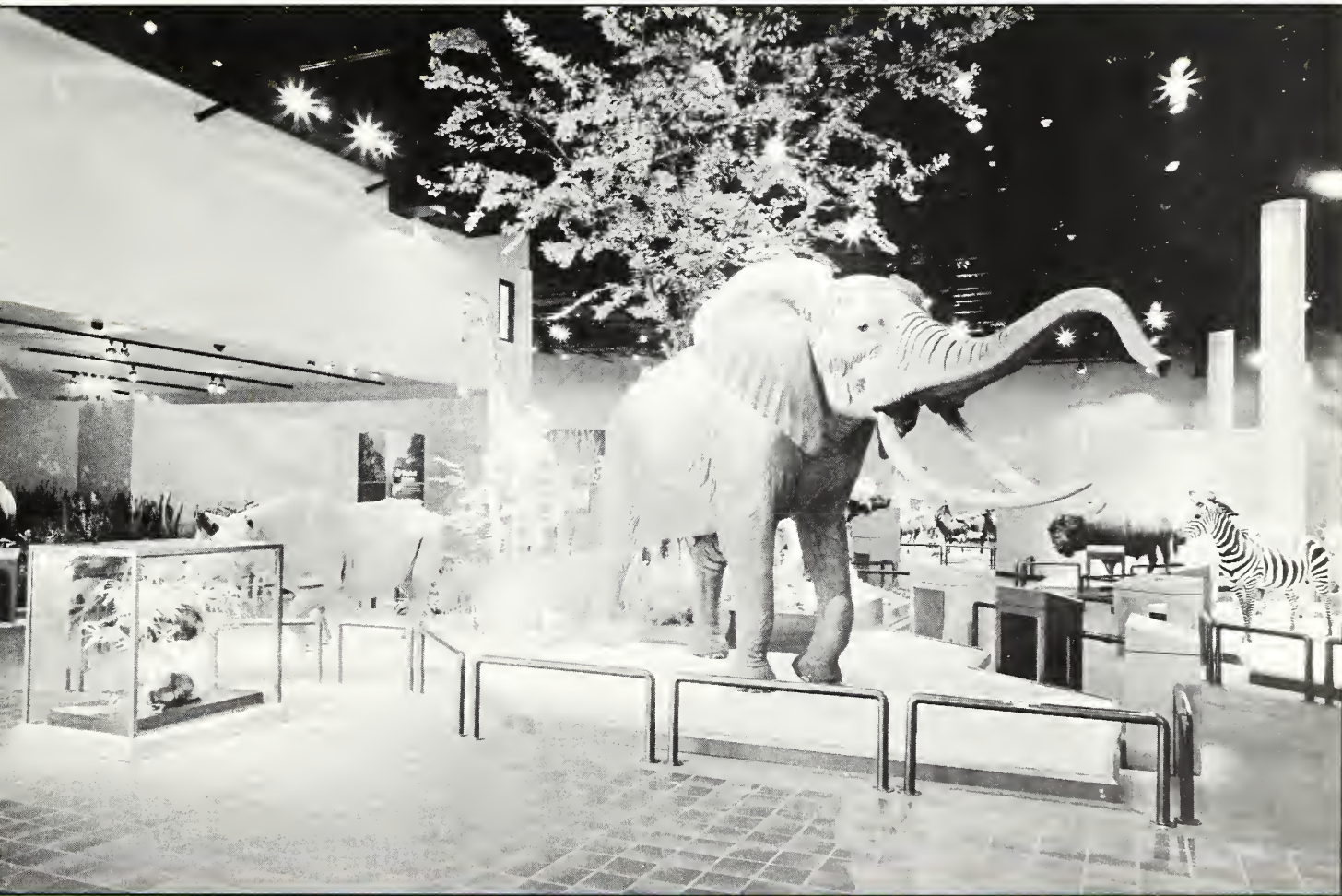
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References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20:710-713.
3. *Data on file*, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
5. *Am J Gastroenterol* 1989;84:769-774.



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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H₂-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H₂-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H₂-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdose occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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The Delbridge Museum of Natural History, in Sioux Falls, SD, displays 150 mounted specimens. The animals are shown in eco-system areas--tropical forest, grassland, desert, tundra and temperate forest. (Photo courtesy of the South Dakota Department of Tourism)

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TAKAYASU'S ARTERITIS IN WESTERN SOUTH DAKOTA

Joseph M. Cash, MD¹
James A. Engelbrecht, MD²

ABSTRACT

Takayasu's arteritis is an inflammatory condition affecting the large arteries. While most reported cases are from Latin America and the Orient, the disease has a worldwide distribution. Patients frequently complain of claudication, arthralgias and fatigue, and physical examination is remarkable for vascular bruits and pulse deficits. The diagnosis is established by angiography and a typical clinical presentation. Prednisone is adequate treatment in the majority of patients. Cyclophosphamide and vascular bypass surgery are reserved for more severe cases. Two cases identified in western South Dakota are presented followed by a detailed literature review.

Takayasu's arteritis (TA) traditionally has been thought to be an extremely rare disease affecting young women of Oriental extraction. Known as the "pulseless disease", those afflicted usually have intense inflammation of the aorta and its major branches with associated symptoms related to the inflammatory state or vascular insufficiency. Four patients (two Caucasian and two Native American) have been seen in western South Dakota in the last two years with confirmed cases of TA. We will discuss two of these patients and review the medical literature.

CASE REPORTS

Case 1

A sixteen year old Sioux Indian woman from the Pine Ridge Indian Reservation, presented for medical attention after noticing a "noise" in her left neck. She also complained of bitemporal headaches, visual blurring, and pain in her extremities with exercise. Initial physical examination was remarkable for a loud bruit heard over the sternal notch, decreased carotid pulsations, absent brachial and femoral pulsations, and faint radial and dorsalis pedal pulses. Bruits were prominent over both carotid arteries, both femorals, and throughout the abdomen. Rheumatoid factor and anti-nuclear antibody were negative. Erythrocyte sedimentation rate (Westergren) was 130 mm per hour. Serum protein electrophoresis was suggestive of subacute inflammation. Urinalysis and renal function were normal. PPD was negative.

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A magnetic resonance imaging (MRI) study demonstrated severe arteritis. The right carotid was totally obstructed, and the left carotid was barely open. Severe stenosis was also noted in the subclavian arteries, distal aorta, and renal arteries. Prednisone, 60 mg per day, dipyridamole, and aspirin were begun. This continued for one month. At that time, the sedimentation had dropped to 38 mm/hr. Bilateral carotid bruits remained, but all pulses were improved as were symptoms of headache and visual claudication. A slow taper of prednisone was begun. Currently, she continues to do well on a prednisone dosage of 10 mg per day.

Case 2

A thirty-four year old Caucasian woman from western South Dakota, noted the insidious onset of malaise, anorexia, fatigue, and left shoulder pain five or six months prior to presentation. Several general medical evaluations early in her course were unrevealing. She was referred to an orthopedic consultant for persistent left shoulder pain. An elevated erythrocyte sedimentation rate was found, and she was referred for rheumatology consultation. At that time she complained of left arm claudication and the notable constitutional symptoms of anorexia and fatigue. Blood pressure was not obtainable in the left arm. The left brachial and radial pulses were absent. No other pulse deficits were noted. The only bruit found was in the epigastric area. Complete physical examination was otherwise normal.

Initial laboratory evaluation revealed a Westergren sedimentation rate of 110 mm/hr, hemoglobin of 9, and hematocrit of 28.5. Iron studies were consistent with the anemia of chronic disorders; serum protein electrophoresis showed a chronic disease pattern. ANA and rheumatoid factor was negative. Angiography revealed occlusion of the left subclavian at its origin extending for six cm. The distal subclavian filled from small collaterals. The left vertebral

artery was also occluded. The aorta and all other branch arteries were normal.

The initial treatment with prednisone, 60 mg per day, was not tolerated as the patient developed marked anxiety and mood changes. Subsequently, treatment with prednisone, 5 mgs, four times a day, and enteric-coated aspirin was tolerated. There was prompt resolution of constitutional symptoms. In two months her brachial pulse was clearly palpable, and her systemic symptoms had resolved. Her blood pressure was 88/72 in her left arm, 120/72 in her right. Since that time her prednisone has been carefully tapered to five mg per day. She has shown no progression of disease but has some reduction of blood pressure in the left arm.

DISCUSSION

Since TA is a heterogenous disorder, patients may initially present to a variety of primary care, surgical or medical specialists. All physicians should be aware of this disorder as early diagnosis and a thoughtful treatment plan are essential for an optimal result. In this section the features of TA and an approach to therapy will be discussed.

EPIDEMIOLOGY

TA has a worldwide distribution although the majority of series have come from Asia, Mexico and the Middle East. Women are affected approximately five times more often than men. Virtually all patients develop symptoms prior to the age of 40. TA is relatively common in Japan, India and Mexico, but the incidence in Caucasians in Olmsted County, Minnesota, is only 2.6 per million per year.¹ Our recent experience suggests that the incidence in western South Dakota may be higher - especially in the Native American population.

ETIOLOGY

Little is known about the factors predisposing to TA. Autoimmunity is felt by some to be important but not by others.^{2,3} Genetic factors are likely to play a role - at least one set of monozygotic twins was found to have the disease.⁴ HLA-Bw52¹ and MB3⁵ have been statistically associated with TA in Japan and the United States, respectively. Mexican investigators have found a higher incidence of typical and atypical mycobacterial infections in patients with TA than in the general Mexican population.⁶ There is, however, no direct evidence of any specific infectious agent in TA. The female predominance in TA has raised questions regarding the role of estrogens, but no clear cut role has been defined.⁷

PATHOLOGY

Patients who die of TA usually have widespread involvement of the aorta and its major branches. The involvement may be either patchy or continuous.⁷ The arterial wall will have varying degrees of thickening in different segments. The aortic root may be dilated, accounting for aortic insufficiency, and the aortic valve leaflets may be scarred and contracted.

Microscopic examination shows inflammatory cells and multinucleated giant cells infiltrating the media and adventitia. Endothelial cell proliferation is prominent. With progression of the disease the intima thickens and the media contracts, leading to narrowing of the arterial lumen. Extensive fibrosis then occurs which may lead to obstruction of the lumen in some areas and weakness of the wall with secondary aneurysm formation in others.

CLINICAL PRESENTATION AND DIAGNOSIS

Symptoms

Symptoms can be divided into those related to vascular insufficiency and those related to systemic inflammation. (TABLE I) Claudication is more common in the upper than lower extremities.¹ This may require careful questioning to elicit. Claudication is most common in the left arm.¹⁴ Raynaud's phenomenon is rare, but angina pectoris is relatively common. Amaurosis and other visual complaints such as those reported by the patient in Case 1 are common. Dizziness is common and when it is associated with upright posture, it suggests severe disease.

Arthralgias were the most frequent symptom in patients presenting to the Mayo Clinic.¹ Other common "systemic" symptoms included fever (frequently greater than 38° centigrade), malaise, weight loss and bilateral dull headache.⁸

Signs

Vascular bruits were the most common physical finding in the Mayo series. More common in the upper extremities, they may also be heard in the abdomen and femoral areas. Hypertension was seen in 72 percent of patients at the National Institute of Cardiology in Mexico City⁶ and 41 percent of patients at the Mayo Clinic. Mexican patients also had a greater incidence of pulse deficits (96%) than patients at the Mayo Clinic (50%) suggesting a more advanced disease at the time of diagnosis. Brachial blood pressure measurements may vary significantly between the right and left arm. Carotid artery tenderness is a very specific sign supporting the diagnosis of TA. Takayasu's original patient,

TABLE I COMMON SYMPTOMS IN TA
Arthralgia
Fever
Malaise
Weight Loss
Headache
Angina Pectoris
Claudication
Amaurosis
Dizziness
COMMON SIGNS IN TA
Bruits
Hypertension
Pulse Deficits
Carotid Artery Tenderness
Blood Pressure Deficits
Fourth Heart Sound
Hypertensive Retinopathy
Synovitis
Aortic Insufficiency

reported in 1908, had retinal arteriovenous malformations (Takayasu's retinopathy), but these were not seen at Mayo Clinic and were only rarely seen in large series from Mexico and Japan.^{6,9} Hypertensive retinopathy is common. The most common cardiac finding is the fourth heart sound. Evidence of cardiac failure and aortic insufficiency is picked up occasionally. Palpable synovitis was found in 22% of the Mayo Clinic patients but was not reported in other series.

Laboratory

Laboratory findings reflect the degree of inflammation at the time they are drawn. The erythrocyte sedimentation rate is typically greater than 50 mm/hr and is accompanied by mild anemia, leukocytosis, elevation of C-reactive protein and thrombocytosis. Gamma globulins are elevated in one-third of patients. Antinuclear antibodies are usually negative in Caucasian patients but were positive in 7 of 107 Mexican patients.⁶ The rheumatoid factor is rarely positive.

Chest Radiographs

Chest x-rays are normal in only 33% of patients.¹⁰ Common abnormalities include irregularities of the descending aorta and calcification of the aortic wall - both uncommon findings in young women. Cardiomegaly, ectatic aortic arch, cardiomegaly, rib notching and decreased pulmonary vascular markings are occasionally seen.

Angiography

All patients suspected of having TA should have a complete angiographic examination of the thoracic and abdominal aorta with specific attention given to all the major branch arteries. Stenosis is the most common angiographic finding, followed by dilatation of the ascending or thoracic aorta. Complete occlusion is rare. Aneurysms of the thoracic and abdominal aorta are seen occasionally and may dissect.¹⁰ The pulmonary artery is involved in approximately 50% of patients and may be associated with right heart failure.^{10,11} Virtually all patients have involvement of the aortic arch and/or its major branch vessels. The most severely involved arteries are generally the subclavians, brachiocephalic trunks, and left common carotid. Two-thirds of patients have involvement of the thoracic aorta, and 50% have abdominal aortic involvement. Extensive involvement of the entire aorta and its branches as seen in Case 1 of this report is about twice as common as the limited involvement seen in Case 2. Renal artery narrowing was found in 40% of patients and may contribute to hypertension in these patients. Iliac involvement is rare.¹² TA may extend to involve the proximal coronary arteries; distal vessels usually are normal.¹³

The use of magnetic resonance imaging (MRI) in the diagnosis of TA is controversial. The literature contains one blinded study comparing MRI to angiography in ten patients.¹⁴ This study suggests that MRI is inferior to angiography in all vessels except the aorta, the innominate artery and common iliac arteries. Nevertheless circumstances may arise where patients refuse angiography (as with patient #1 in this report) or angiography is contraindicated. MRI would be an acceptable alternative in these cases.

DIFFERENTIAL DIAGNOSIS (Table II)

TA is very difficult to diagnose early in its course. The early phases of systemic inflammatory processes such as TA are often marked by vague symptoms such as myalgias, arthralgias, fatigue, and malaise. The more profound constitutional symptoms of fever, night sweats, weight loss, and generalized asthenia often develop as the disease progresses. In Case 2 the non-specific symptoms were pre-eminent and resulted in several medical evaluations without a specific diagnosis. The more chronic phase of the disease is generally heralded by the more specific, localized signs and symptoms relating to the ischemia of the involved organ systems. The claudication, bruits, absent pulses, neurologic sequelae, angina, etc. relate more to these chronic phase vascular obstructive lesions.

<p>TABLE II DIFFERENTIAL DIAGNOSIS OF TAKAYASU'S ARTERITIS</p> <p>Giant Cell Arteritis Syphilitic Aortitis Reiter's Syndrome Ankylosing Spondylitis Thrombo-angiitis Obliterans Congenital Coarctation of the Aorta Atherosclerosis Neurofibromatosis</p>
--

The differential diagnosis usually does not present a problem once vascular insufficiency is identified (Table I). Giant cell arteritis may lead to narrowing of proximal aorta and its branch arteries but has not been reported to involve the pulmonary artery, descending thoracic aorta, or abdominal aorta (common sites of involvement in TA). Giant cell arteritis is seen primarily in elderly patients as is advanced atherosclerotic disease. Syphilitic aortitis affects primarily males between 40 and 55 years old and generally manifests as aneurysms of the thoracic aorta without involvement of the carotid or subclavian arteries. Thromboangiitis obliterans (Buerger's disease) is an inflammatory destructive disorder of small and medium sized arteries that occurs almost exclusively in young male cigarette smokers. Large arteries are not involved. Aortitis and

aortic insufficiency have been reported in Reiter's syndrome and ankylosing spondylitis. Extensive involvement of the aorta and its branch vessels is not seen. Congenital coarctation of the aorta and neurofibromatosis may affect young women, but one would not expect to find evidence of systemic inflammation in this group. Histologic examination may occasionally be required to make the distinction between these two groups. Specific criteria based on extensive clinical experience in Japan may also be helpful in confirming the diagnosis in difficult cases. (TABLE III)

TABLE III
CRITERIA FOR THE DIAGNOSIS OF TAKAYASU'S ARTERITIS¹³

OBLIGATORY CRITERION

Age < 40 yr

MAJOR CRITERIA

1. Left mid subclavian stenosis or occlusion
2. Right mid subclavian stenosis or occlusion

MINOR CRITERIA

1. Erythrocyte sedimentation rate > 20mm/hr at time of diagnosis
2. Carotid artery tenderness
3. Persistent brachial blood pressure > 140/90
4. Aortic regurgitation
5. Pulmonary artery stenosis, irregularity or occlusion
6. Left mid common carotid stenosis or occlusion
7. Distal brachiocephalic trunk stenosis or occlusion
8. Descending thoracic aortic narrowing, dilation or aneurysm
9. Abdominal aortic narrowing, dilation or aneurysm

* A high probability of Takayasu's arteritis is suggested by the presence of the obligatory criterion and two major criteria or four minor criteria.

TA may occur with several other inflammatory diseases. While the finding of rheumatoid factors in patients with TA is extremely rare, the diagnosis of rheumatoid arthritis has been reported both before¹⁵ and after¹⁶ the onset of TA. Other diseases known to rarely occur with TA include ulcerative colitis,¹⁷ glomerulonephritis,^{18,19} interstitial lung disease²⁰ and cutaneous necrotizing vasculitis.²¹

MEDICAL THERAPY

It is the consensus of most reviewers that corticosteroids are adequate treatment for the vast majority of patients with TA.^{22,23} Corticosteroids sup-

press the systemic symptoms and reduce the inflammation within the involved vessels. It is common for pulses to return and bruits to disappear. As Case 2 demonstrates, complete reversal of all stenoses is unusual - probably because corticosteroids have no effect on the fibrotic areas of the vessels. The usual starting dose of prednisone is 1 mg/kg/day²⁴ though our experience suggests that half this dose may be equally effective. After one to two months time, prednisone is tapered slowly (2-5mg/week) with close monitoring of symptoms and laboratory parameters.

Cyclophosphamide has been used successfully in patients who have clinical progression despite adequate corticosteroid therapy.²⁴ It may also be useful in those who cannot be tapered from high dose corticosteroids. One patient recently was successfully treated with methotrexate after failing high dose corticosteroids.²⁵ This is an exciting report because methotrexate is considerably safer than cyclophosphamide. However, neither of these agents have been evaluated in controlled trials.

Nonsteroidal anti-inflammatory drugs may be useful for treatment of associated arthralgias. Antiplatelet drugs and warfarin have not been studied in TA but may be useful in selected patients at particular risk for thrombotic events. Use of angiotensin converting enzyme inhibitors is risky in many patients with TA due to the common finding of bilateral renal artery stenosis.²⁶

SURGICAL THERAPY

Surgery is required for severe renovascular hypertension and vascular occlusion that immediately endangers limbs or vital organs. Aneurysms have been known to dissect in TA; thus they should be resected when identified. Occasionally aortic insufficiency requires valve replacement. Dacron and venous bypass grafts and endarterectomies were generally successful in the Mayo Clinic series. Several authors have stressed that graft occlusion stenosis occurs more often when surgery was undertaken at times when active inflammation was present.^{1,27} Coronary artery bypass surgery has been helpful in patients with symptomatic coronary artery disease.¹⁹ Experience with transluminal angioplasty is limited. One of four arteries treated in this manner at Mayo Clinic restenosed.

PROGNOSIS

The survival of Takayasu's arteritis is variable. In a detailed analysis of 81 Japanese patients followed prospectively for a mean of 7.4 years,²⁸ Ishikawa divided patients into those with relatively uncomplicated clinical courses (54%) and those with one or more serious complications (Takayasu's retinopathy, secondary hypertension, aortic regurgitation, or arterial aneurysm). The ten year survival rate in the uncomplicated group was 97% and in the complicated group 59%. The most common cause of death was stroke. Death was also associated with surgical procedures and improper

corticosteroid administration. Blindness was a major cause of morbidity and seemed to predict early death. Interestingly, no deaths were associated with aneurysms. In contrast, in the Mayo Clinic series¹ two of 32 patients followed for a mean of 5 years had died. No strokes, heart failure, or blindness was seen.

No long term follow up data evaluating the effect of medical or surgical treatment on survival in TA is available. However, it is reasonable to conclude that patients with more aggressive disease do worse and that treatment that preserves vital organ function - especially in the central nervous system - is beneficial.

DISCLAIMER:

The views expressed in this article are those of the authors and not necessarily those of the Indian Health Service.

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REFERENCES

- Hall S, Barr W, Lie JT, Stanson W, Kazmier FJ, Hunder GG: Takayasu arteritis: a study of 32 North American patients. *Medicine* 1985;64:89-99.
- Numano F, Maezawa H, Sawada S, Talal N, Theofilopoulos AN: Circulating immune complexes in Takayasu disease: lack of evidence for a causative role. *Arch Int Med* 1981;141:162-163.
- Ueda H, Saito Y, Ito I, Ymaguchi H, Takeda T, Morooka S: Further immunological studies of aortitis syndrome. *Jap Heart J* 1971;12:1-21.
- Isohia I, Numano F, Maezawa H, Sasazuki T: HLA-Bw52 in Takayasu disease. *Tissue Antigens* 1978;12:246-248.
- Volkman DJ, Mann DL, Fauci AS: Association between Takayasu's arteritis and a B-cell alloantigen in North Americans. *N Engl J Med* 1982;306:464.
- Lupi-Herrera E, Sanchez-Torres G, Marcushamer J, Horwitz S, Vela JE: Takayasu's arteritis: clinical study of 107 cases. *Am Heart J* 1977;93:94-103.
- Numano F, Shimamoto T: Hypersecretion of estrogen in Takayasu's disease. *Am Heart J* 1971;81:591.
- Committee on Study of Arteritis. Clinical and pathological studies of aortitis syndrome. *Jap Heart J* 1968;9:76-87.
- Fraga A, Mintz G, Valle L, Flores-Izquierdo G: Frequency of systemic manifestations and favorable response to maintenance steroid therapy with adrenocorticosteroids. *Arthritis and Rheum* 1972;15:617-624.
- Ishikawa K: Natural history and classification of occlusive thromboangiopathy (Takayasu's disease). *Circulation* 1978;57:27-35.
- Yamato M, Lecky JW, Hiramatsu K, Kohda E: Takayasu arteritis: radiographic and angiographic findings in 59 patients. *Radiology* 1986;161:329-334.
- Lupi EH, Sanchez GT, Horwitz S, Gutierrez EF: Pulmonary artery involvement in Takayasu's arteritis. *Chest* 1975;67:69-74.
- Ishikawa K: Diagnostic approach and proposed criteria for the clinical diagnosis of Takayasu's arteriopathy. *J Am*

Coll Card 1988;12:964-972.

- Cipriano PR, Silverman JF, Perlroth MG, Griep RB, Wexler L: Coronary arterial narrowing in Takayasu's arteritis. *Am J of Card* 1977;39:744-750.
- Miller DL, Reinig JW, Volkman DJ: Vascular imaging with MRI: inadequacy in Takayasu's arteritis compared with angiography. *AJR* 1986;146:949-954.
- Rush PJ, Inman R, Reynolds WJ: Rheumatoid arthritis after Takayasu's arteritis. *J Rheumatology* 1986;13:427-430.
- Falicov RE, Cooney DF: Takayasu's arteritis and rheumatoid arthritis. *Arch Int Med* 1964;114:594-600.
- Achar KN, Al-Nakib: Takayasu's arteritis and ulcerative colitis. *Am J of Gastroen* 1986;81:1215-1217.
- Lai KN, Chan KW, Ho CP: Glomerulonephritis associated with Takayasu's arteritis: report of three cases and review of literature. *Am J of Kidney Dis* 1986;7:197-204.
- Hellman DB, Hardy K, Lindenfeld S, Ring E: Takayasu's arteritis associated with crescentic glomerulonephritis. *Arthritis and Rheum* 1987;30:451-454.
- Greene NB, Baughman RP, Kim CK: Takayasu's arteritis associated with interstitial lung disease and glomerulonephritis. *Chest* 1986;89:605-606.
- Mousa AR, Marafie AA, Dajani AL: Cutaneous necrotizing vasculitis complicating Takayasu's arteritis with a review of cutaneous manifestations. *J Rheumatology* 1985;12:607-610.
- Hunder GG: Are you overlooking Takayasu's arteritis? *J Musculoskeletal Med* 1987;4:56-75.
- Conn D: Takayasu's Arteritis. In: Kelly WN, Harris ED, Ruddy S, Sledge CM, eds. *Textbook of Rheumatology*. Philadelphia: WB Saunders, 1989:1190-1192.
- Shelhamer JH, Volkman DJ, Parrillo JE, Lawley TJ, Johnston MR, Fauci AS: Takayasu's arteritis and its therapy. *Ann of Int Med* 1985;103:121-126.
- Liang GC, Maydag M, Nemickas R: Low dose pulse methotrexate for Takayasu's arteritis. Abstract A4. *Am Coll of Rheumatology*, June 1989.
- Hricik DE, Browning PJ, Kopetman R, Goorno WE, Madias NE, Dzau VJ: Captopril-induced functional renal insufficiency in patients with bilateral renal artery stenosis or renal artery stenosis in a solitary kidney. *N Engl J Med* 1983;307:373-378.
- Sunamori M, Hatano R, Yamada T, et al: Aortitis syndrome due to Takayasu's disease: a guideline for the surgical indication. *J Cardiovasc Surg* 1976;17:443-456.
- Ishikawa K: Survival and morbidity after diagnosis of occlusive thromboangiopathy (Takayasu's disease). *Am J of Card* 1981;47:1026-1032.

AMA Physician Recognition Award

AMA Physician Recognition Award Recipients

Congratulations to the physicians in South Dakota who have earned the AMA Physician Recognition Award in the months of May, June & July, 1990.

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July

Charles L. Pelton, MD	Aberdeen
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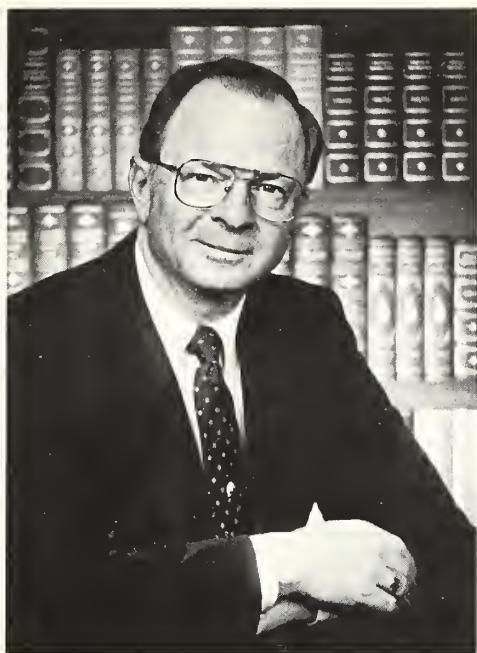
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President's Page



Jerome A. Eckrich, Jr, MD, President, South Dakota State Medical Association

Summer, which traditionally is the time for leisure and recreation is nearly spent. We as physicians must remain so focused and so intense in the practice of our profession that we sometimes forget the value of recreation. Cervantes stated it best, "the bow cannot always stand bent nor can human frailties subsist without some lawful recreation".

Recreation, the process of revitalizing or re-creating one's spirit may be available in many forms. As Benjamin Disraeli stated, "variety is the mother of enjoyment". It is so easy while learning how to work to forget how to play and I think that it is important to remember that occasional fun and relaxation are not luxuries but are necessities in order to maintain a reasonable balance in one's life. Herodotus in 430 BC recognized the therapeutic benefits of recreation recognizing "if a man insisted always on being serious and never allowed himself a bit of fun and relaxation he would go mad or become unstable without knowing it".

In the confusing and rapidly changing political and socioeconomic dynamics in which we find ourselves immersed, it is important to put out of our minds the newly emerged varieties of alphabet soups such as Cobra, HCFA, PPO, PRO, HMO, and the host of other sorrows by which we are constantly inundated. Though golf, tennis, waterskiing, swimming and a host of other activities all provide excellent opportunities to rescue the downtrodden spirit, it is very difficult not to agree

with Isaac Walton's perception that "God never did make a more calm, quiet, innocent recreation than angling". Isaac Walton went on further to state, "doubt not but angling will prove to be so pleasant that it will prove to be like virtue, a reward to itself". He further described angling as, "a rest to his mind, a cheerer of his spirits, a diverter of sadness, a calmer of unquiet thoughts, a moderator of passions, a procurer of contentedness, and that it begat habits of peace and patience in those that professed and practiced it". As part of our obligation as physicians to provide the very best care possible for our patients, we owe it to ourselves on behalf of our patients to maintain a physical vigor and freshness of spirit necessary to effectively deal with the demands of a very exacting profession.

Having expressed my views on leisure and recreation, in closing, I would like to remind the readership of this month's President's Page that the summer is nearly over and I urge those of you who have not yet taken a vacation to do so before it's time to get out our snow shovels and galoshes. "A little fun to match the sorrow of each days growing"--and so, good morrow! Enjoy! #

Jerome A. Eckrich

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Poison Control

Howard Burns, MD, Guest Editor
Emergency Room, McKennan Hospital
Sioux Falls, SD

The Poison Control Movement is still quite young but growing swiftly and has become a valuable entity. Since the establishment of the first poison center in Chicago in 1953, the Poison Control Movement has expanded significantly. The 1988 annual report of the American Association of Poison Control Centers estimates that the 64 reporting centers represented approximately 63% of the reported poison exposures in the United States for that year. Therefore it can be estimated that over 2 million exposures were reported to centers in the United States that year. No doubt there are many more cases of poison exposure that weren't reported. Handling exposure calls is only one function of the poison center.

Much of the poison movement revolves around preventive measures. The advent of safety cap closures

on medications and other chemicals has likely saved the lives of many children and is a success story in the area of poison control and preventive medicine. The advent of antidotes such as mucomyst and treatments like activated charcoal, hemodialyses, and hemoperfusion have led to better care of patients after the poisoning.

The problem of self poisoning in our adolescents and young adults is rapidly growing. Alcohol and drug abuse along with depression are the most commonly seen problems. Interestingly many of the agents used for depression are some of the most dangerous drugs in overdose. The Poison Control Movement has a major challenge with this and many other problems that confront poison control staff on a daily basis. #

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Jacalyn Slingsby, President, South Dakota State Medical Association Auxiliary

Recognition for Following Traditional Roles

Recently there seems to be a positive change in the attitude of many people regarding the traditional role of mother and family. The media has covered two events, and in both instances, recognition was given to these well known families and the mothers who sought and found true happiness in raising their children.

The first event involved First Lady Barbara Bush and Wellesley College in Massachusetts. As you may know, Mrs Bush had been invited to address the college's commencement ceremony, but seniors challenged the idea of honoring "a woman who had gained recognition through the achievements of her husband". What followed was comment and debate by various feminists, columnists and students and as the last articles circulated, it now seems this remarkable woman has received new recognition and honor because she has devoted her life to her family.

The second event occurred when a resolution was passed by Congress to set aside July 22nd as the Rose Fitzgerald Kennedy Family Appreciation Day. In honor of Rose Kennedy's 100th birthday, Congress asked the nation to appreciate families with "appropriate ceremonies and activities".

Both of these women came from a generation where their role in life was that of wife, mother, and volunteer. An important goal in life was to enrich the lives of their family members. Today many of us can relate to these women either in the appreciation we have for our own mothers or perhaps because many physicians' families

have placed importance on family and traditional roles.

At the recent National Auxiliary Convention, the keynote speaker at the opening ceremony was Ann McLaughlin, Chairman of the President's Commission on Airline Security and Terrorism and former Secretary of Labor. Through her knowledge and research, she provided wonderful insight on the challenges that will face us in the 21st Century. She gave detailed analysis of the problems we witness daily; drugs, the compromising of the environment, the homeless, our failing educational system, and the ability of our workforce to compete in an increasing global economic marketplace. Her solution for these serious interrelated problems did not involve money, but rather family, church, school, and neighborhood working together to assure that all Americans will develop a sense of responsibility that permits them to be productive members of our society.

For those individuals who are providing this sense of responsibility in their children and have always recognized the value and importance of family, it is now necessary for them to share that feeling with others so that together an effort can be made to correct these serious problems and help preserve future generations.

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Statewide Breast Cancer Study

South Dakota Tumor Registrars' Association

Robert A. Nelimark, MD¹
Norma Wise, CTR²

ABSTRACT

The South Dakota Tumor Registrars' Association reviewed breast cancer cases in South Dakota for the years 1983 and 1988. There were 225 cases in the 1983 group and 266 cases in the 1988 group. Data from this project revealed over 16% of patients in both groups had positive family histories for breast cancer. More cases in 1988 (119) were Stage I as compared to 1983 (69) suggesting earlier detection through increased awareness of the dangers of this disease by improved educational programs from 1983 to 1988, and the increased use of mammography in 1988 (86.8% of patients) as compared to 1983 (48% of patients). Modified radical mastectomy was the initial therapy in the majority of cases in both groups. Segmental resection followed by radiation therapy was the initial local therapy for 13 patients in 1988 as compared to six patients in 1983. Hormone receptor analysis was obtained in over 70% of patients in both groups.

Adjuvant drug therapy was given to 25% of patients in both groups. Only two patients in 1983 and one patient in 1988 were entered on national research protocols.

The South Dakota Tumor Registrars' Association has reviewed and compared characteristics of breast cancer cases diagnosed in South Dakota in 1983 and 1988. Participating tumor registries in both of these reviews included St Luke's Midland Regional Medical Center, Aberdeen, South Dakota; US Air Force Hospital, SGARC, Ellsworth Air Force Base, South Dakota; Mobridge Regional Hospital, Mobridge, South Dakota; Rapid City Regional Hospital, Rapid City, South Dakota; McKennan Hospital, Sioux Falls, South Dakota; Royal C. Johnson Veterans Administration Hospital, Sioux Falls, South Dakota; and Sioux Valley Hospital, Sioux Falls, South Dakota.

There were 225 cases (221 patients) reviewed in the 1983 study as compared with 266 cases (261 patients) in the 1988 study. As would be expected in both studies, the majority of patients were in the 50 to 79 year old age group. (Table I) In the 1983 study 146 of the 221 patients (66.1%) were in this age group as compared to the 1988 study when 189 of the 261 patients (72.4%) were in this age group. Unfortunately, approximately 18% of the patients in both studies were under the age of 49. The majority of patients were postmenopausal, 78.3% in 1983 as compared to 77.4% in 1988. (Table II) Thirty-two of the patients (14.5%) in 1983 were

premenopausal as compared to 37 patients (14.2%) in the 1988 study. Four patients in the 1983 study and five

Table I
Age Distribution

Age Range	1983		1988	
0-39	16	7.2%	15	5.7%
40-49	26	11.8%	28	10.7%
50-59	44	19.9%	56	21.5%
60-69	52	23.5%	70	26.8%
70-79	50	22.6%	63	24.1%
80-89	26	11.8%	26	10.0%
90-99	7	3.2%	3	1.2%
Total	221	100%	261	100%

Table II
Menopausal Status

Status	1983		1988	
Postmenopausal	173	78.3%	202	77.4%
Premenopausal	32	14.5%	37	14.2%
Perimenopausal	4	1.8%	4	1.5%
Unknown	12	5.4%	18	6.9%
Total	221	100%	261	100%

¹Medical Oncologist, Central Plains Clinic, Sioux Falls, SD.
²Tumor Registrar, McKennan Hospital, Sioux Falls, SD.

patients in the 1988 study had bilateral breast cancers at the time of diagnosis.

Over 16% of the patients in both groups had positive family histories for breast cancer. Ninety-two patients (41.6%) in 1983 had a positive family history for cancer in general as compared to 90 patients (34.5%) in 1988.

The initial presenting symptom in the 1983 study was a breast lump/mass in 56% of patients. (Table III) In 1988, however, the presentation with breast lump occurred in only 43% of the patients. This decrease is thought to be due to the increasing use of mammography. In 1983 the malignancy was discovered by routine mammogram in only 4% of the cases as compared to 36.8% of the cases in 1988. (Table IV)

Of interest also is the duration of symptoms. (Table V) In 1983, 74 patients (32.9%) had symptoms over one month duration as compared to 40 patients (15%) in

1988 who had symptoms for over one month duration prior to diagnosis. It should be noted also that the malignancy was discovered by the patient herself in over 40% of cases in both studies. These findings reflect the impact of our cancer education programs; through education women are becoming more aware of the dangers of this disease and of the importance of early detection.

Table III Initial Presentation				
Symptom	1983		1988	
Breast mass/lump	127	56.4%	115	43.2%
Breast tenderness	10	4.4%	6	2.2%
Skin dimpling/retraction	8	3.5%	8	3.0%
Breast change/abnormality	7	3.1%	7	2.6%
Pain, not otherwise specified	7	3.1%	4	1.5%
Breast pain	6	2.7%	-	-
Weight loss	6	2.7%	1	0.4%
Swollen axillary lymph nodes	5	2.2%	-	-
Breast discharge	4	1.8%	3	1.1%

Table IV How Cancer Was Found				
Method	1983		1988	
Routine mammogram	9	4.0%	98	36.8%
Incidentally by patient	110	48.8%	96	36.1%
Physician exam	54	24.0%	41	15.4%
Breast self exam	17	7.6%	9	3.4%
Other	2	0.9%	8	3.0%
Unknown/not stated	33	14.7%	14	5.3%
Total	225	100%	266	100%

Table V Duration of Symptoms				
	1983		1988	
1 month or less	44		39	
1-2 months	21		11	
2-6 months	29		10	
6 months-1 year	13		8	
Longer than 1 year	11		11	
Unknown/not stated	38		58	

Table VI Mammography Obtained				
	1983		1988	
Yes	108	48.0%	231	86.8%
No	62	27.6%	23	8.7%
Unknown/not stated	55	24.4%	12	4.5%
Total	225	100%	266	100%

Table VII Type of Breast Biopsy				
	1983		1988	
Excisional biopsy	89	39.6%	103	38.7%
Wire/needle localization	6	2.7%	71	26.7%
Breast biopsy, NDS	67	29.8%	56	21.1%
Needle aspiration	23	10.2%	15	5.6%
Incisional biopsy	21	9.3%	7	2.6%
Axillary lymph node biopsy	2	0.9%	1	0.4%
only				
TruCut needle biopsy	-	-	1	0.4%
None	7	3.1%	-	-
Not stated	10	4.4%	12	4.5%
Total	225	100%	266	100%

Table VIII Hormone Receptors Obtained				
	1983		1988	
Yes	162	72.0%	201	75.6%
No	58	25.8%	61	22.9%
Unknown/not stated	5	2.2%	4	1.5%
Total	225	100%	266	100%

Mammography was obtained in 86.8% of the cases at the time of diagnosis in the 1988 study as compared with 48% of the cases in 1983. (Table VI) Needle localization accounted for 26.7% of the positive biopsies in the 1988 study as compared to only 2.7% of the positive biopsies in the 1983 study. (Table VII)

Hormone receptor studies, an important prognostic indicator, were obtained in 75.6% of the cases in 1988 and 72% of the cases in 1983. (Table VIII) The reason for hormone receptors not being obtained was most often due to the tumor being too small for receptor

analysis. Hopefully, newer technology for estrogen receptors will allow 100% determination in the future.

Flow cytometry is another useful modality currently being investigated. None of the cases in the 1983 study had this procedure performed. In the 1988 study 14.3% of the cases had the procedure performed. Flow cytometry has the potential for being another important prognostic indicator. It may prove to be very useful in determining which women are at risk for systemic spread of their malignancy.

Table IX				
Size of Tumor				
	1983		1988	
2 cm or less	116	51.6%	142	53.3%
2 cm to 5 cm	81	36.0%	86	32.3%
Greater than 5 cm	13	5.6%	13	5.0%
No discreet mass	2	0.9%	1	0.4%
Unknown/not stated	13	5.9%	24	9.0%
Total	225	100%	266	100%

Most tumors in both groups were located in the upper outer quadrant of the breast. Tumor size was less than two centimeters in 51.6% of the tumors in 1983 as compared to 53.3% of the tumors in the 1988 study. (Table IX) The majority of the tumors in both groups were infiltrating ductal carcinomas, and most were grade II or moderately differentiated. Axillary nodes were examined in 84% of the cases in 1983 as compared

Table X				
AJCC (TNM) Stage				
	1983*		1988	
Stage O	6	2.7%	12	4.5%
Stage I	69	30.8%	119	44.7%
Stage II	110	49.1%	106	39.9%
Stage III	19	8.5%	19	7.1%
Stage IV	16	7.1%	5	1.9%
Unknown/not stated	4	1.8%	5	1.9%
Total	224	100%	266	100%
*One lymphoma case cannot be TNM staged.				

to 89.5% of the cases in 1988. Reasons for not examining axillary nodes included palliative mastectomies in advanced carcinoma of the breast and poor surgical risk patients. Only 57.3% of the cases in 1983 had negative nodes at the time of diagnosis as compared to 71.4% of the cases in 1988. This is extremely important prognostically and indicates earlier diagnosis of the malignancy.

The percentage of cases which were Stage I at the time of diagnosis in 1988 was 44.7% as compared to 30.8% of the cases in 1983. (Table X) Of the 106 cases

Table XI				
Initial Therapy				
	1983		1988	
Surgery	125	55.6%	161	60.6%
Surgery & drugs	58	25.8%	68	25.6%
Surgery & radiation	24	10.7%	19	7.1%
Surgery & drugs & radiation	7	3.1%	12	4.5%
Drugs & radiation	5	2.2%	1	0.4%
Drugs	3	1.3%	2	0.7%
Radiation	-	-	1	0.4%
No treatment	2	0.9%	2	0.7%
Unknown	1	0.4%	-	-
Total	225	100%	266	100%

which were Stage II in 1988, 58 (55%) were Stage II because of positive lymph nodes, and 48 (45%) were Stage II due to tumor size alone. Of the 110 cases which were Stage II in 1983, 73 (66%) were Stage II because of positive lymph nodes, and 37 (34%) were Stage II due to tumor size.

In both studies the majority of patients underwent surgical resection by modified radical mastectomy. Two patients required a radical mastectomy in each of the years studied. Thirteen patients in 1988 underwent segmental resection followed by radiation therapy as compared to six patients in 1983. Twenty-five percent of all cases in both studies received adjuvant drug therapy after surgery. Approximately 4% of the cases in both studies required all three modalities for treatment. (Table XI)

Only two patients in 1983 and only one patient in 1988 were entered on national research protocols at the time of diagnosis. The availability of protocols during the study periods may be partially responsible for these low figures. The reader is reminded that the use of adjuvant chemotherapy is currently being studied in a national multi-group protocol. This national study will randomize both premenopausal and postmenopausal lymph node-negative women who are at high risk for systemic metastasis. Those patients who are considered low risk will be observed. There are also protocols available for node-positive Stage II patients.

Finally, 144 patients in the 1983 study were alive, and 75 patients were deceased at the time of this review. Thirty-nine of the deceased patients were Stage II, and ten of the deceased patients were Stage I at the time of diagnosis. Two hundred fifty-five patients in the 1988 study were alive at the time of this evaluation.

DISCUSSION

Information from this review indicates a positive trend in the earlier diagnosis of breast cancer in South Dakota. Improved educational programs and the increased use of mammography appear to have had a

significant impact on diagnosing this disease in an earlier stage. Hopefully through continued early detection and improved methods of treatment through research endeavors, we will see a decline in mortality from this deadly disease.

ACKNOWLEDGEMENT

Special thanks to the following tumor registrars for their extra efforts towards collecting and compiling the data for this study:

- Alice Mullner, St Luke's Midland Regional Medical Center
- Carolyn Purdy, CTR, US Air Force Hospital SGARC
- Pam Houghtaling, ART, Mobridge Regional Hospital
- Elaine Ebbert, CTR, Peggy Pientok and Diane Rogala, Rapid City Regional Hospital
- Kara LeBrun, RRA and Norma Wise, CTR, McKennan Hospital
- Deb Blom, Royal C. Johnson Veterans' Administration Hospital
- Roma Larson, ART and Karla Sorenson, ART, CTR, Sioux Valley Hospital

1990 SDSMA/Specialty Meetings

SDSMA Council Meeting, Friday, September 21, 9:30 am, Town House, Sioux Falls, SD.

North Central Medical Conference, Saturday and Sunday, November 3-4, Radisson Plaza, Minncapolis, MN.

SDSMA Council Meeting, Friday, November 16, 9:30 am, Ramkota Inn, Pierre, SD.

AMA Interim Meeting, December 2-6, Orlando, FL.

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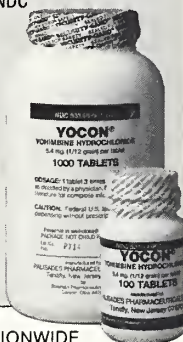
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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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Future Meetings

October

Clinical Perspective on Blood Lipids, Hyatt Regency Hotel, Minneapolis, MN, Oct 5-6. Fee: \$25. 5.75 hrs AMA Category I credit. Contact: Off of Academic Affairs, Hennepin County Med Ctr, 701 Park Ave S, Ste 4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

American Society for Therapeutic Radiology and Oncology, Miami Beach, FL, Oct 15-18. Contact: Michael Bernstein, Dir of Communications, American College of Radiology, 1891 Preston White Dr, Reston, VA 22091. Phone: (703) 648-8900.

Practical Clinical Management: Drug Abuse Education for the Primary Care Physician, Convention Ctr, Baltimore, MD, Oct 20-21. Fee: \$100. 12 hrs AAFP, PRA, AMA Category I credit. Contact: Medical & Chirurgical Faculty of Maryland Drug Conf, 1211 Cathedral St, Baltimore, MD 21201-5585.

56th Annual Scientific Assembly of the American College of Chest Physicians, Sheraton Centre Hotel, Toronto, Ontario, Canada, Oct 22-26. Category I credit avail. Contact: Div of Education, Am College of Chest Physicians, 911 Busse Hwy, Park Ridge, IL 60068-2375. Phone: (312) 698-2200.

Pulmonary Function Testing Workshop, St Paul-Ramsey Med Ctr, St Paul, MN, Oct 25-26. 14 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

6th Ramsey Trauma Conference, St Paul-Ramsey Med Ctr, St Paul, MN, Oct 25-26. 13 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

58th Annual Postgraduate Assembly, Red Lion Inn, Omaha, NE, Oct 25-27. Contact: Lorraine Seibel, Exec Sec, Omaha Mid-West Clinical Society, 7363 Pacific St, #205-B, Omaha, NE 68114. Phone: (402) 397-1443.

November

Clinical Allergy for the Practicing Physician, Ritz-Carlton Hotel, St Louis, MO, Nov 1-3. Fee: \$200. 20.5 hrs AMA Category I credit. Contact: Off of CME, Washington Univ School of Med, PO Box 8063, St Louis, MO 63110. Phone: 1-800-325-9862.

Controversies & Clinical Management in High Risk Obstetrics, New Orleans, LA, Nov 1-4. AMA Category I credit avail. Contact: La Wayne Andersen, Sec, CME Div, Creighton Univ School of Med, California at 24th St, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

Acute Management of the Trauma Patient, Marriott Hotel, Omaha, NE. AMA Category I credit avail. Contact:

LaWayne Andersen, Sec, CME Div, Creighton Univ School of Med, California at 24th St, Omaha, NE 68178-0072. Phone: 1-800-548-CMED.

Cancer in the Nervous System, 34th Annual Clinical Conference and 23rd Annual Special Pathology Program, Westin Galleria Hotel, Houston, TX, Nov 3-6. Contact: Univ of Tex, MD Anderson Cancer Center, Off of Public Affairs, Conference Services, 1515 Holcombe Blvd, Houston, TX 77030. Phone: (713) 792-2222.

Primary Care Update, the Scientific Assembly of Interstate Postgraduate Medical Association, Hilton at Walt Disney World Village, Lake Buena Vista, CA, Nov 12-15. Fee: \$250. 24 hrs AAFP & AMA Category I credit. Contact: IPMA, PO Box 5474, Madison, WI 53705. Phone (608) 257-1401.

2nd Annual Family Practice Update, SD Osteopathic Assn, Ramkota, Pierre, SD, Nov 16-17. Fee: \$100-mem, \$115-others. 15 hrs AOA credit & 14 hrs AMA Category I credit. Contact: David Lauer, 981 E Main St, Sturgis, SD 57785.

PLEXUS II, the Neurobiology of Agression, Austin, TX, Nov 17-18. Fee: \$325. CME credit avail. Contact: Pamela Johnson, Dir, Public Relations, Healthcare Rehabilitation Ctr, PO Box 43148, Austin, TX 78745. Phone: 1-800-252-5151.

December

Growth Factors and Their Receptors in Cancer: Basic Mechanisms and Therapy, 43rd Annual Symposium on Fundamental Cancer Research, Westin Galleria Hotel, Houston, TX, Dec 4-7. Contact: Paula Gray, Off of Public Affairs, Univ of Texas, MD Anderson Cancer Center, 1515 Holcombe Blvd, Houston, TX 77030. Phone: (713) 792-3030.

Annual Cardiopulmonary Medicine Update: A Comprehensive Review of Principles & Practice, St Paul-Ramsey Med Ctr, St Paul, MN, Dec 6-8. 16 hrs AMA Category I credit. Contact: Off of CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

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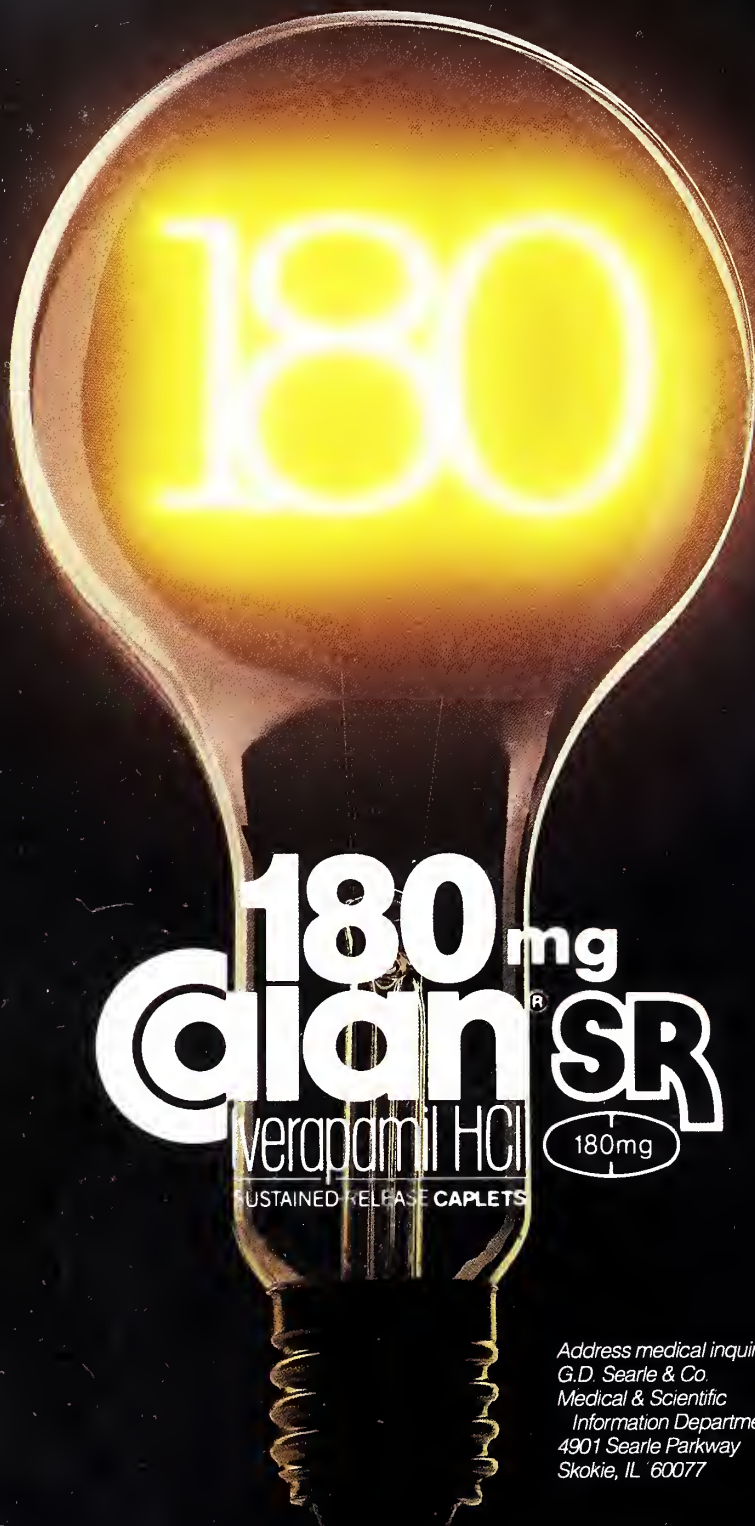
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JOURNAL OF MEDICINE

Diastasis Recti and Umbilical Hernia
Causes, Recognition and Repair

USD School of Medicine
Unilocular Hydatid Cyst Disease:
A Challenging Diagnosis

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Am Fam Phys 1987;36:133-140

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Contraindication: Known allergy to cephalosporins.

Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:

- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of non-susceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.24%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.

- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology.

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistix[®] tablets but not with Tes-Tape[®] (glucose enzymatic test strip, Lilly).

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NEXT MONTH

Superior Mesenteric Artery Syndrome: An Approach to the Diagnosis and Management of Upper Gastrointestinal Obstruction of Unclear Etiology

About the Cover
The prehistoric world lives again at the Museum of Geology in Rapid City. The collection offers outstanding exhibits of dinosaurs, prehistoric fish and plant life, and a fantastic gem and mineral display. (Photo courtesy of the South Dakota Department of Tourism)

Interactions *A Medical Staff Leadership Program*

**November 29, 1990
The Peabody Orlando
Orlando, Florida**

Medical staff leaders may find that their special clinical skills and extensive clinical experience do little to prepare them for the complexities of this demanding role. A role that requires the skills and sensitivity of an arbitrator, facilitator, manager, advisor, negotiator, communicator, problem solver, peacemaker and professional peer.

To help you refine your personal style of leadership, develop your professional decision-making and problem-solving abilities, and enhance your repertoire of management skills, the AMA is pleased to offer Interactions, the 1990 Medical Staff Leadership Program. It offers ample opportunity for leadership skill-building, self-assessment, frank conversation and feedback.

Program Participants

If you are a new chief-of-staff, department director, committee chairman or you serve in any other leadership capacity, the AMA's new Interactions can provide you with the self-assurance and skills you need to be successful in this challenging new role.

Leadership Objectives

- Improve emerging medical staff leaders' understanding of skills needed to perform formal duties.
- Enhance the understanding of medical staff leadership conflicts inherent in today's healthcare scene.
- Increase ability to interact effectively with medical staff peers and hospital/governing body leadership.

Location and Date

The AMA Medical Staff Leadership Program will be conducted on Thursday, November 29, 1990, at the Peabody Orlando Hotel, in Orlando, Florida. For ease of accommodations and travel, the AMA offers the program one day prior to the 1990 Hospital Medical Staff Section Interim Meeting, and three days prior to the 1990 AMA Interim Meeting.

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Diastasis Recti and Umbilical Hernia Causes, Recognition and Repair¹

Brooks Ranney, MD²

ABSTRACT

Among 1738 parous women who needed abdominal hysterectomies, 553 were found to have mild, 108 had moderate, and 12 had severe diastasis recti. Also, 97 had umbilical hernias. Methods of recognition and repair are diagramed and discussed. Postoperative improvement in firmness and function of the lower abdominal wall is greatly appreciated by respective patients.

Precis: Methods of recognition and repair of mild, moderate, or severe diastasis recti are diagramed and discussed.

What are the effects of pregnancy upon the abdominal wall? In *Williams Obstetrics*, Hellman and Pritchard wrote that during pregnancy, "...the muscles of the abdominal wall are unable to withstand the tensions to which they are subjected, and the recti separate in the midline, creating a diastasis of varying extent. In severe cases a considerable portion of the anterior uterine wall is covered by only a thin layer of skin, fascia, and peritoneum".¹ Concerning the months and years after delivery, in 1918, Joseph B. DeLee wrote, "In many women the abdominal walls very slowly and imperfectly regain their previous elasticity. In but a few, the tonus is well preserved."²

Almost all women who have carried a fetus to term are dissatisfied with the subsequent relaxed appearance, lack of firmness, and poor function of the lower abdominal wall. While relaxed abdominal walls are only an inconvenience for some parous women, for others they produce varying amounts of disability, occasionally severe.

Likewise, a term pregnancy sometimes stretches the umbilicus so severely that an umbilical hernia is produced.

Lower Abdominal Incisions:

Transverse incisions such as the Pfannenstiel or Cherney take more time, require more dissection of tissue and double ligation or coagulation of segmental vessels, transect more segmental nerves causing numb-

ness, leave more tissue spaces for serum and blood to collect in, and tend to restrict operating space. Therefore, we have preferred to limit transverse incisions, using them only for cosmetic purposes in younger patients who had small, benign lesions. Usually we preferred to use a midline lower abdominal incision between the umbilicus and symphysis, which cuts across fewer blood vessels and nerves, and rapidly permits more space for operating.

Likewise, the lower midline incision most readily permits recognition and correction of diastasis recti, and of small umbilical hernias. Correction may be performed less readily using the Pfannenstiel incision; not at all, with the Cherney incision.

Identification and Classification of Diastasis Recti and Umbilical Hernia:

During abdominal incision, an observed separation of more than one and less than 3 centimeters between the medial fibers of the recti has been labeled mild diastasis; 3 to 5 centimeters separation, moderate diastasis; 5 or more centimeters, severe diastasis.

While examining the upper abdomen, immediately after making the abdominal incision, it takes only a moment to place the tip of the index finger under the umbilicus (Figure 1). Any small weakness or defect is readily palpable.

Larger umbilical hernias protrude, and their extent may be palpated during physical examination. Likewise, if a recumbent patient, who is quite thin, is asked to lift her chin and head down to her sternum, the visible and palpable bulging of the relaxed fascia between the contracting recti may delineate the approximate extent of moderate to severe diastasis (Figure 2)

1. Presented at the District VI Meeting of the American College of Obstetricians and Gynecologists, St Paul, MN, September 21, 1989.

2. Professor of Obstetrics and Gynecology, USD School of Medicine, Yankton, SD.

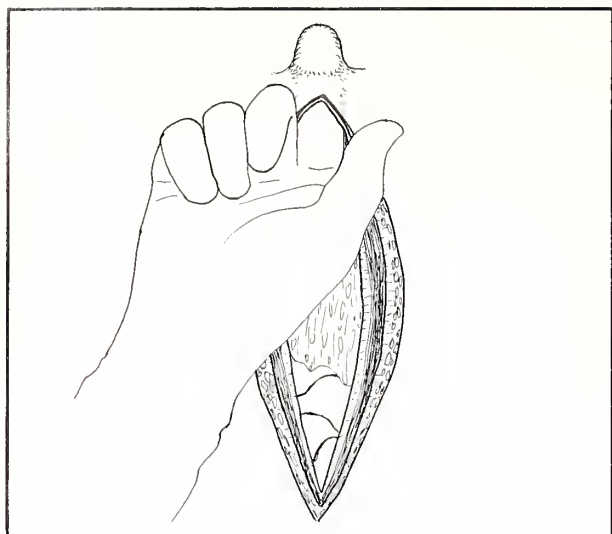


Figure 1

Identification of small umbilical hernia or weakness.

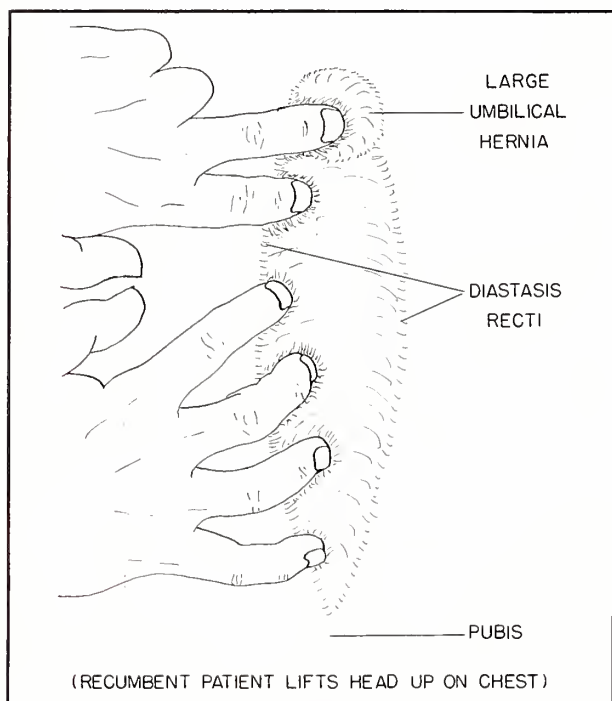


Figure 2

Examination for diastasis recti and umbilical hernia

Statistics:

Among 1738 parous women who needed abdominal hysterectomy for various reasons, 31.82% had recognizable mild diastasis recti; 6.21% had moderate, and 0.67% had severe diastasis recti. Also, 5.58% had umbilical hernias (Table I).

Operative Correction:

1. Umbilical Hernia:

Often umbilical hernias contain a lobe of omentum, but larger ones may hold loops of bowel.³ All contents

Table I 1738 Parous Women (Abdominal Hysterectomy)		
With Diastasis Recti	Number	Percent
Mild	553	31.82
Moderate	108	6.21
Severe	12	0.69
Umbilical Hernia	97	5.58

must be removed. The peritoneal sac is often densely adherent to overlying strands of fascia, and to the umbilical skin, from which it must be dissected. Then the fascial borders of the hernia are closed from underneath, with interrupted non-absorbable sutures, including tiny fibers of overlying subdermal tissues, so as to reconstruct the normal external appearance of the umbilicus.

Small umbilical hernias (1 to 2 cm.) may be closed with several sutures in the vertical plane--which then become the upper angle for closure of the abdominal incision. Larger hernias, and those which are repaired with separate incisions, should always be closed in the transverse plane, because vertical closure would be at right angles to the pull of the aponeurotic fibers of the transversalis fascia.³

2. Mild or Moderate Diastasis Recti:

Among aged or debilitated patients we occasionally use interrupted, through-and-through, or Smead-Jones sutures, especially if sepsis is likely.⁴ But usually we prefer to close the abdominal incision in anatomic layers. If medial fibers of either the right or left rectus muscles are trapped in the rectus sheath, the muscle may be freed using two Allis forceps on the fascia, finger dissection of the muscle, and a scissors to incise the fascial sheath and free the muscles.

Wound dehiscences and subsequent hernias do not occur from outside-in. The pressures are from inside the abdomen--outward. Therefore, it is most important that the inside layer, the peritoneum and the transversalis fascia (down as far as the arcuate line) be repaired carefully, so they will heal accurately (Figure 3). If pregnancy has stretched the transversalis fascia (diastasis), it may be gathered together (plicated) proportionately during this suturing, avoiding undue tension. We prefer plastic absorbable suture to close and plicate peritoneum and transversalis, but we reinforce the transversalis closure with 4 to 6 interrupted 00-Nylon sutures which are extended as far toward the pubis as this fascial structure has recognizable substance and strength. Below the arcuate line the peritoneum and the attenuated transversalis are sutured only with the continuous plastic suture. Since lateral pressures are minimal in the lower half of the incision, wound dehiscence rarely occurs there.

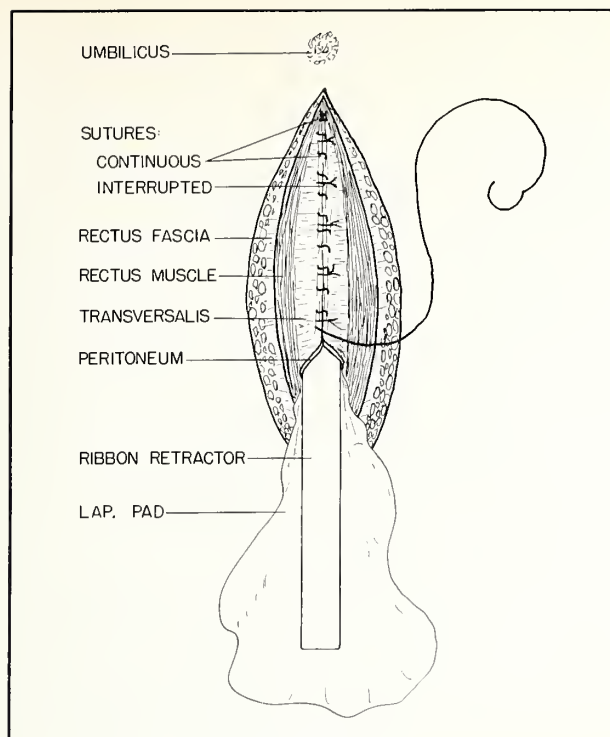


Figure 3

Closure and plication of the peritoneum and the transversalis fascia.

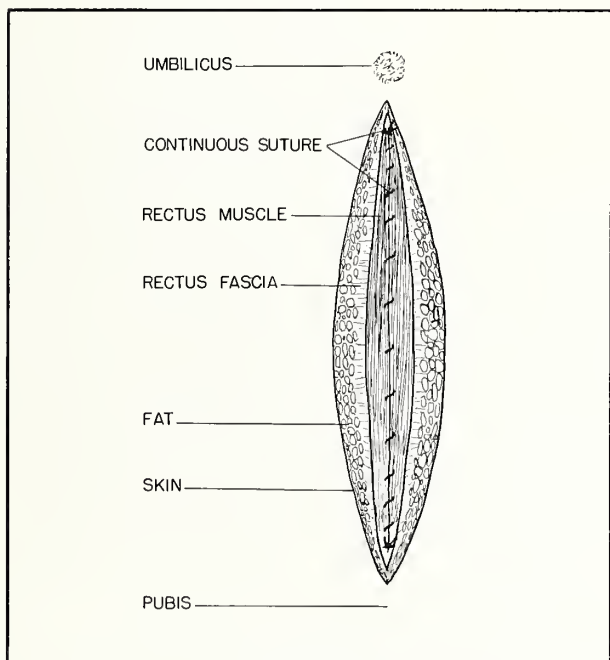


Figure 4

Recti sutured together.

If there has been any amount of diastasis recti, we suture together the medial fibers of the recti, starting at the aponeurosis, near the pubis, using a continuous plastic, absorbable suture, without tension, and anchor-

ing the uppermost knot into fascia near the umbilicus (Figure 4). (Medial fibers of the recti may be sutured together under a Pfannenstiel incision, but no fascial repair is possible.⁵)

Then, we close the rectus fascia, gathering in appropriate amounts (plication). Here we use two lengths of plastic absorbable sutures. The first suture starts from the sub-umbilicus and extends to mid-incision; the second, from above the pubis to mid-incision (Figure 5).

One row of 4-0 interrupted silk approximates the superficial fascia. A second row approximates the subdermal fat. Then the skin is closed.

3. Severe Diastasis Recti:

Severe relaxations of the abdominal wall require individually varying amounts of a "pants-over-vest" type of repair, in a side-to-side manner (imbrication) (Figure 6). First the peritoneum and transversalis from the left side are sewed snugly under that of the right side, using

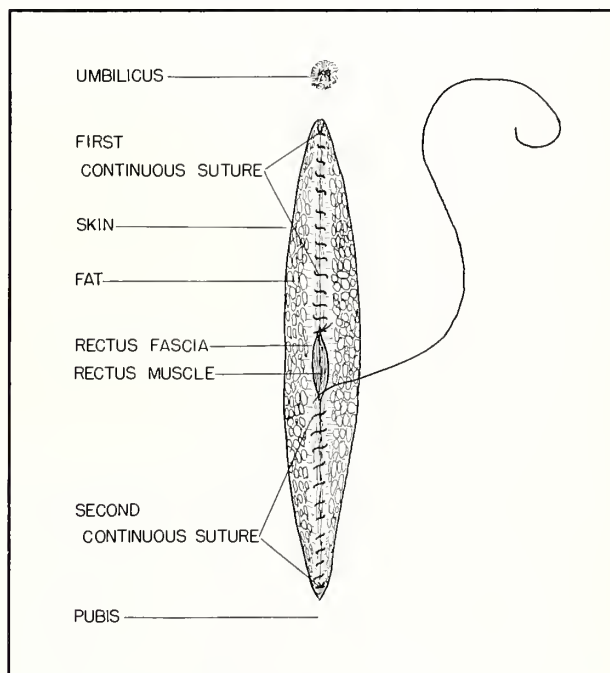


Figure 5

Closure and plication of the rectus fascia.

continuous plastic suture. At the same time, the redundant superior flap of peritoneum and transversalis from the right side is sewed across to the left, using interrupted silk or nylon mattress sutures.

When the transversalis is imbricated, and the abdominal cavity has been closed, the medial fibers of the recti are sewed together as sketched in Figure 4.

Finally, rectus fascia may be sutured in a "pants-over-vest", side-to-side manner, similar to Figure 6. Or, individually redundant amounts of rectus fascia may be trimmed off, and it may be plicated, as shown in Figure 5.

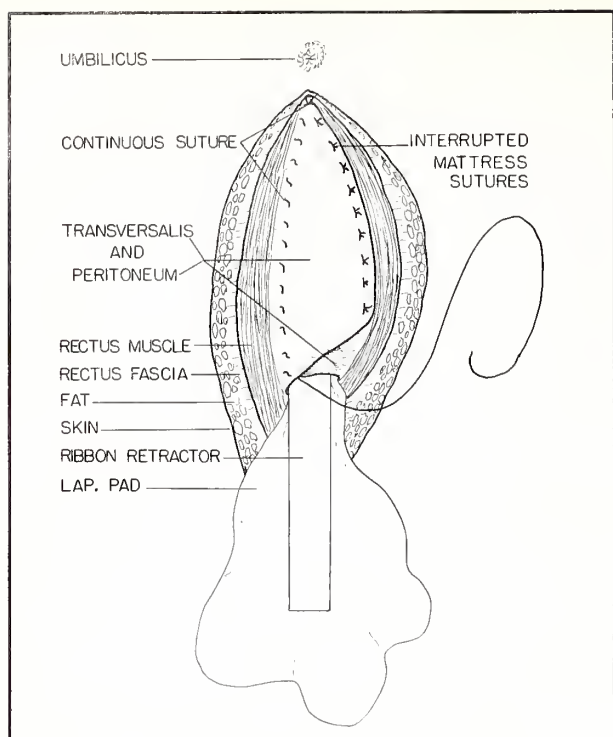


Figure 6

Imbrication of the transversalis and peritoneum for severe diastasis recti.

Follow-up:

Follow-up, by periodic examination in the office, has continued until the present time or until death for 67.28% of these patients. All patients have been followed from one to 37 years after their operations (average 14.77 years).

Results:

None of these patients had a wound dehiscence, nor a hernia.

After healing is complete, most of these patients have appreciated the improved strength of their lower abdominal walls.

Fifteen patients have needed subsequent operations, 5 to 22 years later, to remove adnexae.⁶ Repeat midline incisions showed that each layer had healed firmly. The recti were so closely approximated that it was always difficult to discover the true midline. This is the only disadvantage resulting from close approximation of the recti.

Comment:

The relaxations which result from extreme stretching of the abdominal wall during 9 months of pregnancy, or during repeated pregnancies, are seldom repaired by gynecologists or surgeons, unless they are severe--when they become primary indications for operations. Such patients are relatively few in number.

The purpose of this paper is to emphasize the fact that many more parous women have mild to moderate

disabling relaxations of the abdominal wall. These are seldom primary indications for operation. But, those patients who need lower abdominal operations for sundry reasons also may have their post-obstetric relaxations of the abdominal wall repaired quite simply with little or no extension of operating time. These patients truly appreciate the improved anatomy and function of their lower abdominal walls.

REFERENCES

1. Hellman LM, Pritchard JA: Williams Obstetrics. 14th ed. New York: Appleton-Century-Crofts, 1971:245-246.
2. DeLee JB: Principles and Practice of Obstetrics. 3rd ed. Philadelphia: WB Saunders, 1918:217-218.
3. McVay CB: Anson-McVay Surgical Anatomy. 6th ed. Philadelphia: WB Saunders, 1984:574-575.
4. Mattingly RF: Telinde's Operative Gynecology. 5th ed. Philadelphia: JB Lippincott, 1977:170-173.
5. Kaser O, Ikle FA, Hirsch HA. Atlas of Gynecologic Surgery. 2nd ed. New York: Thieme-Stratton, 1985:43-44.
6. Ranney B, Abu-Ghazaleh S: The future function and fortune of ovarian tissue which is retained in vivo during hysterectomy. *Am J Obstet Gynecol* 1977;128:626.



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1. Data on file, G.D. Searle & Co.
2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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Standard of Care

Albin J. Janusz, MD, JD, FACS, Guest Editor
Aberdeen, SD

Absent a special contract, a physician does not warrant, guarantee or insure the results of treatment. Moreover, a mere error in judgement by the physician is not actionable. Professional malpractice liability is predicated upon the existence of an act or omission proximately causing injury, which constitutes a departure from accepted medical standards of care. This is a comparative standard which weighs the propriety of a particular medical decision against specific medical standards.

The standard of care which is applied to physicians has been in a state of flux over the past several decades. Originally, physicians were bound to provide that level of care and treatment commensurate with like physicians in the same locality. This intra-locality comparison was designed to protect the rural physician from unfair comparisons with physicians from large urban areas. This locality rule was believed to foster a "conspiracy of silence" among the physicians in the community. This "conspiracy" hindered a plaintiff from obtaining necessary medical testimony from an expert in the same locality where the alleged malpractice occurred. Additionally, this rule was criticized for precluding recovery for injuries sustained as a result of obvious negligence when the treatment rendered was nevertheless consistent with the practices prevailing in the community.

Due to the increasing urbanization and suburbanization of American society, the discrepancy in quality care offered in urban and non-urban areas has narrowed considerably. Consequently, several courts have expressly rejected the locality rule.

A number of jurisdictions have completely rejected any locality limitations on the standard of care applicable to the average member of the profession practicing the specialty in issue.

Since establishing the standard of care plays such a central role in malpractice cases, it is important to ask who sets these standards?

To be quite candid, I have no idea what the standard of care is, and my point is that neither does anyone else. My interpretation of the term and how it is practiced is in a legal, not medical context. The implementation of the term in the judicial setting is always retrospective, accepts consensus opinion as fact, considers the printed word sacrosanct, and disregards in large part the intangible and interpersonal patient variables that so often

affect medical outcome.

Today's body of knowledge is an ever changing consensus of intermingled opinion and fact. It is equally clear that there never was and never will be a complete body of medical knowledge. To treat patients, the body of knowledge is used within the limitations noted and applied in concrete individual circumstances. The instances of today's dogma becoming tomorrow's heresy are legion; the art of medicine is even more nebulous. Patient compliance, emotional stability, educational background, and family support are complexly interwoven with science.

The standard of care as presently used is invalid, inaccurate, and non-medical. The medical community has no obligation to accept this concept and, in my opinion, should not.

Physicians should reject the term and concept of "standard of care". The medical body of knowledge contains both fact and opinion. Each case must be assessed on individual merits, including intangible factors and only from a prospective viewpoint.

We should investigate the standards utilized by review organizations; challenge all standards and computer norms. Each case is individual and must have prospective considerations.

It is unfortunate that the medical community must divert its attention to these matters which distract us from our goal of medical excellence. Reality makes this diversion necessary as we can no longer endure the mixed signals of a hostile legal system, inappropriate governmental controls, and the pursuit of excellence.

#

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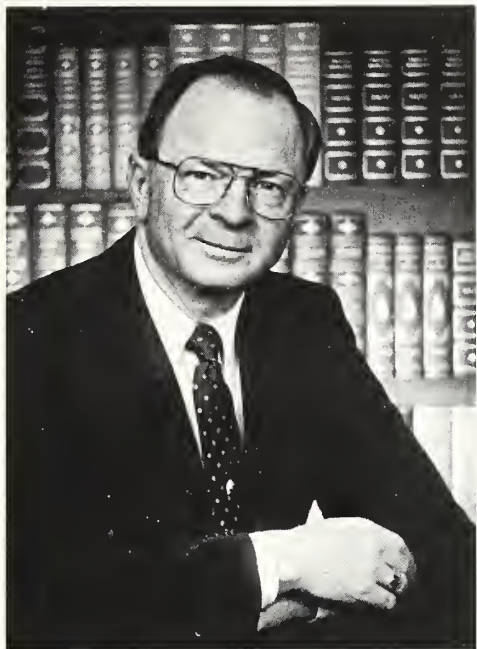
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President's Page



Jerome A. Eckrich, Jr., MD, President, South Dakota State Medical Association

We are seeing more in the news concerning the accelerating fanaticism of animal rights organizations who are trying to prevent the use of animals for biomedical research and medical training. Former Surgeon General C. Everett Koop recently expressed his concern over the actions of these extremist animal rights groups and the epidemic of misinformation they have created in their efforts to achieve their goals. Recently, the Secretary of the Department of Health and Human Services, Dr Lewis W. Sullivan, has also charged that the animal rights movement has wasted millions of research dollars and used intimidation and violence to halt medical experiments. Dr Sullivan credited animal research into such diseases as cancer, AIDS, cardiovascular disease, diabetes, mental illness, and drug abuse with saving millions of lives. Gina Koch, national president of the Incurably Ill for Animal Research, pointed out that the cost of animal rights terrorism goes beyond dollars and cents--precluding or delaying cures that otherwise might be realized. Koch credits animal research with saving the life of her daughter, Lila, who was the smallest child ever to successfully receive a pacemaker.

Stapling procedures could not have been developed without animal research. These innovations have greatly enhanced the practice of surgery in general and specifically in thoracic and colorectal surgery. As both

providers and consumers of medical care, we must recognize that animals humanely treated are absolutely necessary for research and surgical training if the world's societies are to enjoy a future free from many of today's health scourges.

Certainly every precaution and measure available should be utilized to insure that no laboratory animal is unnecessarily abused or made to suffer. The primary concern, however, of physicians must be the human animal. Where laboratory animals must be sacrificed in order to provide better care for human animals or to save the lives of our human patients the importance of human health and life must necessarily supersede concerns with regard to laboratory animals. Representative Vin Weber (Republican Minnesota) has warned that animal rights activism has become a powerful and dangerous political movement. "I believe it is reasonable to say" he advised, "that there is no political movement that more directly threatens the health and quality of life of the American people in the 1990's than the animal rights movement." However sincere and well meaning these groups may be, they certainly do not have the right to say that the life of one's spouse, child or the life of one's neighbor is less important than that of an animal.

Former Surgeon General C. Everett Koop voiced the need for public action in this regard when he called for doctors and scientists who conduct research, to work together to prevent any further erosion of public support in the use of research animals. We as physicians who understand the continued need for animal research models must speak out in favor of the responsible use of animals in the laboratory and to do all we can to educate the public with the relevant facts of this emotional issue. #

Jerome A. Eckrich

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CARDIOLOGY UPDATE '90



WEDNESDAY, OCTOBER 31, 1990
8 A.M. TO 4 P.M.
SIOUX CITY CONVENTION CENTER
SIOUX CITY, IOWA



GUEST FACULTY

FRANK V. AGUIRRE, M.D., Assistant Professor of Medicine, St. Louis University Medical Center, Division of Cardiology, St. Louis, MO

BRUCE R. CARR, M.D., Director, Division of Reproductive Endocrinology, Department of Obstetrics and Gynecology, University of Texas Southwest Medical Center, Dallas, TX

ROBERT S. ELLIOT, M.D., Director, the Cardiovascular Institute, Swedish Medical Society, Denver, CO and Director, Preventative and Rehabilitative Cardiology, Heart Lung Center, St. Luke's Hospital, Phoenix, AZ

MARC R. PRITZKER, M.D., Medical Director, Cardio-Thoracic Transplant Program, Minneapolis Heart Institute, Abbott Northwestern Hospital, Minneapolis, MN

ANDREW P. SELWYN, M.D., Associate Director of Medicine, Director of Cath Lab, Brigham and Woman's Hospital, Harvard University, Boston, MA

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CARDIOLOGY UPDATE '90

WEDNESDAY, OCTOBER 31, 1990
SIOUX CITY CONVENTION CENTER

MORNING SESSION

8:30 A.M.--REGISTRATION AND
CONTINENTAL BREAKFAST

8:55 A.M.--WELCOMING REMARKS

9:00 A.M.--"New Understanding of the Cell
Biology of Atherosclerosis Lesions and Treatment
of Coronary Syndromes"

Andrew P. Selwyn, M.D.

9:50 A.M.--"Overview on Current Issues in
Thrombolytic Therapy"

Frank Aguirre, M.D.

10:40 A.M.--BREAK*

11:10 A.M.-- "Cardiovascular Benefits of
Estrogen Therapy"

Bruce R. Carr, M.D.

12:00 NOON--LUNCH, First floor, Gallery B
"Health Care Reimbursement: Medicare in the 1990's"
Congressman Fred Grandy
R-Iowa, 6th District

*Cardiology-related diagnostic equipment on exhibit--Gallery C.

COURSE AND PROGRAM OBJECTIVES

This course is targeted to physicians and nurses whose practice includes a higher level of cardiac nursing. Other nurses are welcome to attend if they wish.

Participants at the completion of this program should be able to discuss current concepts and trends in the treatment of cardiovascular disease. Specific topics to be addressed are: Atherogenesis and Clinical Management; Thrombolytic Therapy for Acute Myocardial Infarctions; Estrogen Replacement Therapy and CV Risk: The Continuing Controversy; Cardiac Arrhythmia in Acute/Post MI Patients; End Stage Heart Failure and the Role of Cardiac Transplant; Stress and Sudden Death Syndrome.

REGISTRATION. Registration is complete when form and fee have been received in the Continuing Education Office, Marian Health Center, 801 5th Street, Sioux City, Iowa 51101. Pre-registration is encouraged.

FEE. The symposium registration fee includes: course materials, breaks, luncheon and continuing education credit. A full refund is available if a cancellation notice is received by the Midwest Heart Institute prior to the October symposium.

Category I: As an organization accredited by the Iowa Medical Society for Continuing Medical Education, the Marian Health Center's Medical Staff Continuing Medical Education Program certifies that this CME offering meets the criteria for 6 hours in Category I of the AMA Physician's Recognition Award, provided it is used and completed as designated.

AAFP: This program has been reviewed and

AFTERNOON SESSION

1:00 P.M.--"Antiarrhythmics Overview"
John R. Windle, M.D.

1:50 P.M.--"Management of End Stage Failure"
Marc R. Pritzker, M.D.

2:40 P.M.--BREAK*

3:10 P.M.--"Stress and Sudden Death"
Robert S. Elliot, M.D.

4:00 P.M.--Summary and Evaluation

4:15 P.M.--Adjournment

SIOUX CITY FACULTY

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is acceptable for 6 elective hours by the American Academy of Family Physicians.

Nurses: Upon completion of the entire program, each nurse will be granted 0.7 CEUs by Marian Health Center. Approved Provider of continuing education by Iowa Board of Nursing #56.

No partial credit will be granted.

LOCATION. The Sioux City Convention Center, 4th and Jones Streets, Sioux City, Iowa. The program will be held in the second floor meeting rooms. The telephone number of the Convention Center is 712-279-4800.

LODGING. A block of rooms has been reserved for the participants at the Sioux City Hilton Inn, 707 4th Street, (712)277-4101. The room rates for this course are \$53 single and \$63 double occupancy. In order to receive this special rate, be sure to identify yourself with the Midwest Heart Institute when making your reservations.

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CARDIOLOGY UPDATE 1990

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Unilocular Hydatid Cyst Disease: A Challenging Diagnosis

Katherine E. Oppedahl, MS IV¹
Harold E. Fromm, MD²

ABSTRACT

Echinococcosis, a disease uncommon in the United States, is extremely rare in South Dakota, although it is endemic in several regions of the United States and prevalent in certain areas of the world. Due to the mobile state of the world's population, recognition of this disease is important. Echinococcosis carries the potential for significant morbidity and mortality which can be minimized by appropriate surgical management. Awareness of this disease and proper history taking will allow the physician to make the often challenging diagnosis.

INTRODUCTION

Echinococcus granulosus, alias the dog tapeworm causes unilocular hydatid cyst disease when infecting the human during the larval stage. Humans become an inadvertent intermediate host by ingesting echinococcus ovum that have been passed with the feces of dogs (Figure 1).

The eggs, once ingested, liberate oncospheres which penetrate through the small intestinal mucosa into the mesenteric vessels for transport to various organs of the body. Approximately 60-70% of the oncospheres implant in the hepatic sinusoids, 20-30% lodge in the lung, and a small percent are carried into the systemic circulation, giving rise to cysts in organs such as brain, spleen and bone.¹

The tiny oncosphere changes dramatically after implantation. The embryo evolves to consist of a cystic center with an inner germinal layer having reproductive potential. New larvae (scolices) develop in large num-

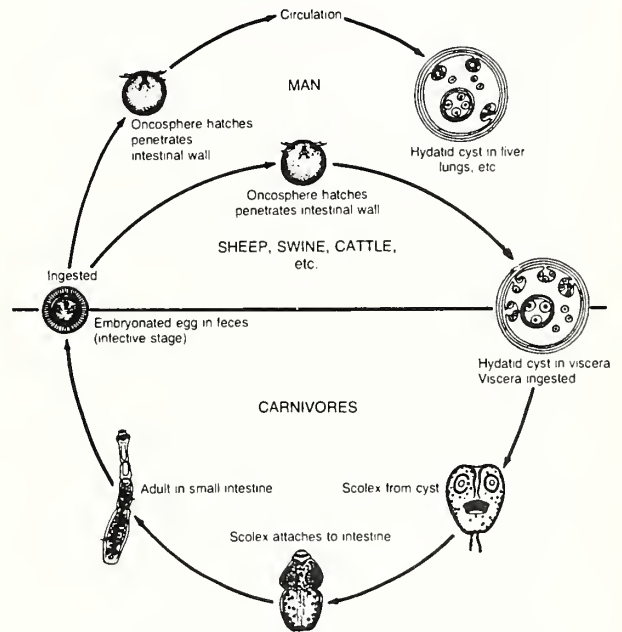
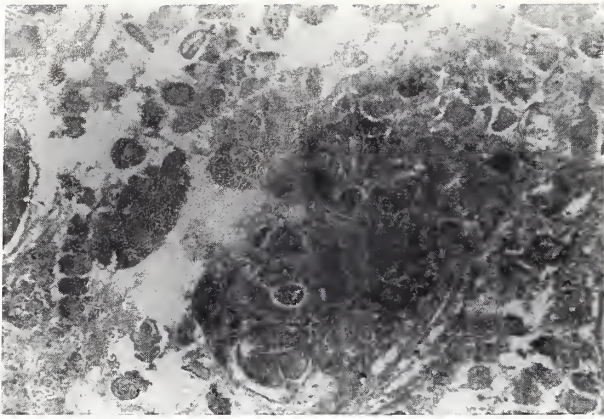


Figure 1
Lifecycle of *Echinococcus granulosus*.³

bers from the germinal layer within "brood capsules" (Figure 2). The larvae grow slowly into hydatid cysts, producing space-occupying lesions which grow at variable rates averaging 1 cm/year.²

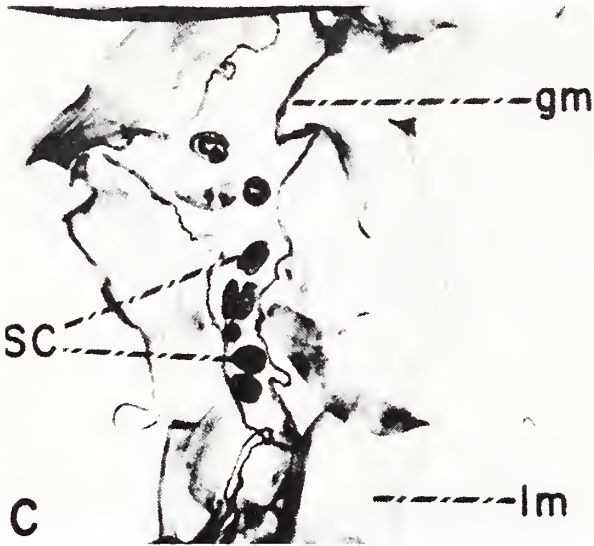
1. Fourth year student, USD School of Medicine, Rapid City, SD.
2. Clinical Associate Professor, Department of Surgery, USD School of Medicine, Rapid City, SD.
3. Lifecycle used with permission from G.T. Strickland: Hunter's Tropical Medicine, 6th edition. Philadelphia, W. B. Saunders Co, 1984, as modified from D. M. Melvin: Common Blood and Tissue Parasites of Man. Life Cycle Charts. Atlanta, Georgia, Centers for Disease Control, 1979.



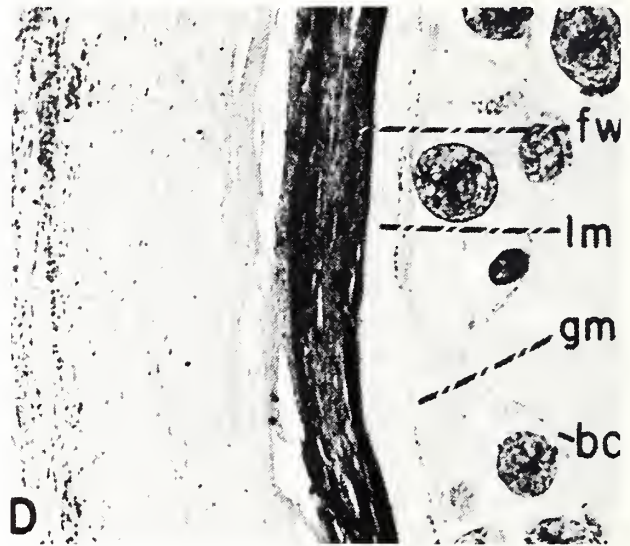
A. Contents of unilocular hydatid cyst revealing protoscolices in the Tonganese patient.



B. Microscopic view of one of the many scolices found in the patient's cyst.



C. Histologic section showing the external laminated membrane (lm), inner germinal membrane (gm), and protoscolices (sc).¹



D. Histologic section showing brood capsules (bc) attached to the germinal membrane (gm) and surrounded by the laminated membrane of the parasite (lm) and the fibrous host wall (fw).¹

Figure 2

When the infected viscera of the usual intermediate host are eaten by dogs, the lifecycle of the parasite can be completed. The scolices are released from the ingested cysts and mature into the adult form in the small intestine. The mature glottid of the adult worm ruptures to allow the passage of thousands of ovum with the feces which can then be ingested by the intermediate host.

Sheep are the major intermediate host for the pastoral strains, with other domestic ungulates (swine, cattle, goats, horses, and camels) being important in certain regions of the world. The sylvatic or northern

strain is maintained in wolves and wild ungulates (moose and reindeer) in Alaska, Canada, Scandinavia, and Eurasia.³ The areas where the pastoral strains are found include Australia, Eastern Europe, the southern and central USSR, the Middle East, and the entire Mediterranean littoral. Most cases seen within the United States are due to people immigrating from endemic areas, but autochthonous transmission is recognized in specific areas such as California, Utah, Arizona, and New Mexico, with cases also noted in the mid-South.⁴

When a patient presents with a cystic liver mass or symptoms of a space-occupying lesion, an accurate social history and inclusion of echinococcosis in one's differential is very important.

We report a patient who presented with abdominal pain and a cystic lesion of the liver.

1. C & D used with permission from G. T. Strickland: *Hunter's Tropical Medicine*, 6th edition. Philadelphia, W. B. Saunders Co, 1984, as courtesy of the Armed Forces Institute of Pathology.

REPORT OF A CASE

A 41-year-old married, Tonganese woodcutter presented to the Emergency Room complaining of the acute onset of severe, sharp, and constant abdominal pain. It was located in the right lateral abdomen, being most severe in the right upper quadrant. Upon waking that morning, he had also noticed pain in the right shoulder and base of his neck. He complained of nausea, anorexia, and fever but denied any other associated manifestations. Late in his clinical course, the patient recalled a ten-year history of intermittent epigastric discomfort and pain in the right CVA area when driving long distances. There was no past history of liver or biliary tract disease, alcohol ingestion, tobacco use, or drug allergies. His past medical records revealed a similar episode of abdominal pain in late 1988. He had an appendectomy with the pathology report revealing a normally maturing appendix.

Social history obtained late in his clinical course revealed close contact with his dog which had ample exposure to his father's farm animals, mostly cattle. Although his dog was specifically fed only "people food", an interesting Tonganese custom might have contributed to this case. A pig roast is a frequent event with *in toto* consumption of the pig, including liver, lungs, brain, intestines, etc. Tonganese enjoy their meat rare and frequently the internal organs, which are eaten by dog and human alike, are very rare.

The physical examination revealed right lateral and marked right upper quadrant tenderness. No hepatosplenomegaly was noted. The stool was hemocult positive. The examination was otherwise unremarkable.

Laboratory data revealed WBC 15,600/mm³ with 1% eosinophils, hemoglobin of 18.5 g/dL, hematocrit 54.2%, serum amylase of 45 (10-59 U/L), SGOT of 39 (0-37 U/L), total bilirubin of 0.74 (<1.5 mg/dL), BUN 21.9 mg/dL and serum creatinine 1.6 mg/dL. Initial radiographs of the chest and abdomen were normal.

The patient was admitted to the hospital for evaluation and treatment. The differential diagnosis on admission included: acute cholecystitis, pancreatitis, torsion of the appendices epiploica or omentum, rupture of a hepatic cyst, perforated duodenal ulcers, and diverticulitis.

The upper GI, small bowel, and barium enema were essentially normal. The abdominal ultrasound was normal except for a 3 cm space-occupying lesion immediately beneath the right hemidiaphragm. A Pipida scan, used to visualize the liver and the hepatic ducts, revealed a probable cyst in the upper posterior right lobe of the liver with normal hepatic ducts. A CT scan revealed a 3 cm space-occupying lesion in the upper posterior right lobe of the liver containing mostly fluid with a nidus of calcification and ascites in the right upper quadrant as well as an adjoining pleural ef-

fusion in the right hemithorax with right lower lobe atelectasis.

A complement fixation test of the serum for *Echinococcus granulosa* was ordered. Repeat labs revealed an eosinophilia of 14%. Eosinophilia of greater than 7% was also noted on three out of four past hospitalizations.

The patient was taken to the operating room with a presumptive diagnosis of echinococcosis. Entry into the thoracic cavity revealed a mass underlying the diaphragm and adherent to the diaphragm. A 4 cm cyst was drained and instilled twice with 95% alcohol. Renografin 60 was instilled into the cavity for radiographic visualization. The thick-walled inner layer of the cyst was removed. The fibrous outer layer was treated by electrofulguration. Pathological examination of the cyst revealed hepatic echinococcosis. The complement fixation test for *Echinococcus granulosa* returned as antibody positive.

DISCUSSION

Diagnosis of echinococcal disease is made by history, physical examination, laboratory tests, and radiographic studies. Due to the slow growth of the hydatid cyst, the average age of presentation is 35 years. A latent period of 5-20 years between infection and diagnosis is typical.¹ Many patients are asymptomatic when the lesion is discovered incidentally on physical exam or x-ray studies. When the patient becomes symptomatic, pain is the most common symptom occurring in 90% of the cases.⁵

Thus the patient may present in a variety of ways including a palpable abdominal mass, vague right upper quadrant pain, or as a complication of the hydatid cyst. These complications include intrabiliary rupture (5-25% of hepatic cysts^{6,7,8}), bacterial superinfection, intraperitoneal rupture with anaphylactic shock (2-12%⁹), bronchial fistulization, intrapleural rupture, portal hypertension, or GI bleeding.¹ Cystic hydatid disease is fatal in 1-4% of diagnosed cases.¹⁰ Rarely, hydatid cysts are found in other organ systems (splenic, renal, cerebral, ocular, and osseous) and present with symptoms appropriate to the area.

Laboratory studies include immunoelectrophoresis and complement fixation which yield positive results in 80-90% of the cases.⁵ Indirect immunofluorescence, ELISA, latex agglutination and indirect hemagglutinin for *Echinococcus granulosa* are also helpful.¹¹ Eosinophilia is present in approximately 40% of cases. Casoni's skin test is not helpful.

Radiographic studies that are helpful include ultrasound, CT scan, radioactive isotope scans, angiography, and x-ray. X-ray studies of the liver reveal the calcified rim of a space-occupying lesion although it may not be present in a young, growing cyst. Diagnostic aspiration is contraindicated because of the potential for an anaphylactoid reaction and the possibility of dis-

semination of the infection.

Surgery is felt to be the treatment of choice for echinococcal disease. Great care must be taken to avoid contamination of the peritoneal cavity with the highly antigenic material. Intracystic pressure is reduced with aspiration followed by injection of absolute alcohol or hypertonic saline to kill the scolices.¹ The cyst is then surgically excised. A pharmaceutical approach is used when the patient is not amenable to surgery. Mebendazole, an antiparasitic agent, is currently used to treat intraperitoneal rupture of abdominal hydatid cysts. Researchers are currently seeking a method of immunoprophylaxis for unilocular hydatid cyst disease.¹²

Preventive methods in endemic areas have had some success. Infected carcasses and offal should be burned or buried and infected dogs must be wormed. Hands should be washed carefully after contact with infected dogs.¹³

Diagnosis of hydatid cyst disease is challenging especially in areas where it is rare. Failure to diagnose hydatid cyst disease may result in significant morbidity and even death. Hydatid cyst disease should be included in the differential diagnosis of patients presenting with abdominal pain and a space-occupying lesion of the liver, particularly if they have lived or traveled in endemic areas.

REFERENCES

1. Brown MS, Reddy KR, Jeffers LJ, Schiff ER: Misdiagnosis of echinococcal cyst disease of the liver. *Am J Gastroenterol* 1986;81:984-987.
2. Mandell GL, Douglas RG, Bennett JE: Principles and Practice of Infectious Diseases. Churchill Livingstone, New York, 1990:2153-2156.
3. Hoeprich PD, Jordan MC: Infectious Diseases: A Modern Treatise of Infectious Processes. J.B. Lippincott Company, Philadelphia 1989:832-836.
4. Daly JJ, McDaniel RC, Husted GS, Harmon G: Unilocular hydatid cyst disease in the mid-south. *JAMA* 1984;251(7):932-933.
5. Paone R, Mercer L, Miranda C, McGee WG: Echinococcal disease of the extrahepatic biliary tract. *Tex Med* 1989;85(9):36-38.
6. Murty TVM, Sood KC, Rakas FS: Biliary obstruction due to ruptured cyst. *J Ped Surg* 1989;24(4):401-403.
7. Humayun MS, Rady AM, Soliman GM: Obstructive jaundice secondary to intra-biliary rupture of hepatic hydatid cyst. *Int Surg* 1989;74:4-6.
8. Alper A, Ariogul O, Emre A, et al: Choledochoduodenostomy for intrabiliary rupture of hydatid cysts of liver. *Br J Surg* 1987;74:243-245.
9. Placer C, Martin R, Sanchez E, Soleto E: Rupture of abdominal hydatid cysts. *Br J Surg* 1988;75:157.
10. Strickland GT: Hunter's Tropical Medicine. W. B. Saunders Co., Philadelphia 1984:774-778.
11. Finegold SM, Baron EJ: Bailey and Scott's Diagnostic Microbiology. C.V. Mosby Company, St. Louis 1986:811.
12. Carol H, Hernandez A, Baz A, Nieto A: Lack of interspecies barriers in anti-id stimulated antibody production against echinococcus granulosus antigens. *Parasite Immunol* 1989;11:183-195.
13. Sherris JC, Ryan KJ, Ray CG, et al: Medical Microbiology: An Introduction to Infectious Diseases. Elsevier, New York, 1984:542-544.
14. Lopera RD, Melendez RD, Fernandez I, et al: Orbital hydatid cyst of echinococcus oligarthrus in a Human in Venezuela. *J Parasitol* 1989;75(3):467-470.

THE SOUTH DAKOTA JOURNAL OF MEDICINE

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ORIGINAL MANUSCRIPTS: Material appearing in all publications of the Journal of Medicine should be typewritten, double-spaced and the original copy. An abstract of 100-200 words and a list of references should accompany each article. Footnotes should conform with the requirements for manuscripts, and each manuscript should include the name of the author(s), the location of the author and title of the article. The pages should be numbered consecutively. The used manuscript is not returned but every effort will be made to return manuscripts not accepted or published by the Journal. Articles are accepted for publication on condition they are contributed solely to this Journal.

ILLUSTRATIONS: Satisfactory photographs or drawings should be supplied by the author. Each illustration, table, etc., should bear the author's name on the back. Photographs should be clear and distinct 5"x7" glossy prints. Drawings should be made in black India ink on white paper. Used illustrations are returned after publication if requested.

The contact person at the Journal office is Jeri Spars, (605) 336-1965.



Jacalyn Slingsby, President, South Dakota State Medical Association Auxiliary

Volunteerism

This word is familiar to anyone presently living in a small community or having been raised in such an environment. It is the basis of making good things happen in areas of need.

I recently attended the United Way kick-off luncheon in my community. I was impressed by the increased participation of my city's leaders which has added more professionalism to the fund raising campaign. A record six hundred people were present which included our mayor, Senator Pressler, many volunteers from the various agencies involved and also persons served by these agencies. Its main purpose was to stimulate and motivate those individuals who have volunteered to help raise the money for United Way. One man who has provided the enthusiasm for three such luncheons was a local businessman. Each year he has been even more enthusiastic and has quoted research which concludes that reaching out to help someone is a predictor of long life. He said "it feels wonderful to give; not only for the person receiving, but for the individual who is giving". This year he asked us to give beyond what we have done before and guarantees it will make us feel good.

"Increased volunteerism for the physician and his or her family" is the theme for our National Auxiliary President Norma Skoglund. She has spent much of her time as a volunteer and feels strongly that involving the physician and his or her spouse in volunteerism will help to improve the quality of life for many and also greatly enhance the image of the physician.

SOUTH DAKOTA

Just how to begin this task, which will be a little easier for those already involved, is addressed in a new publication by the AMA Auxiliary titled, "Working with the Media". This is part of a "Building Bridges" media campaign that was launched in June. The purpose of this program is to teach auxiliaries to recognize news and feed it to the media in a public relations effort aimed at using the volunteer efforts of both the auxiliaries and MDs to improve the physician's image. The need for this focus on the positive side of the medical community is in response to most media coverage which is negative and mainly concerns the high cost of medicine. Very few articles are written about medical families donating time to a local clinic, physicians providing physicals to school age children, physicians providing eye exams to the elderly or physicians who serve as team doctors for local colleges or high school sports programs. This booklet was designed to answer the detail questions of journalism. **Who** is the contact to get a story told; **What** is news; **Where** to send story ideas; and **How** to tell the story well.

Our own State Office of Volunteerism offers a yearly Volunteer Leadership Conference designed to train supervisors of volunteers for the various agencies. This office also selects the Volunteer of the Year recipient. When I spoke to a friend of mine who works in this office about the importance of volunteerism in a community, her first response was, "What would happen to little boys and girls if we didn't have Little League?"

In our smaller communities most volunteerism is a necessity. There are volunteer fire departments, much volunteer effort by parents to improve programs offered at churches and schools, and most senior citizen programs. There are also volunteer groups such as those related to a specific disease or health problem, for citizen advocacy, for the handicap, hospice, hospital auxiliaries, women protection agencies, church shelters, and of course, Girl Scouts and Boy Scouts. All of these agencies and more are totally dependent on volunteers and have also proved to be a needed service to our communities over the years.

Knowing that our involvement in volunteerism will increase our life expectancy and make us feel better than before, let us also try to make our communities more aware of our efforts.

If you would like a copy of the booklet, please notify the state office. #

Jacalyn Slingsby

This is your Medical Association



Freshmen medical students at USD School of Medicine and their families enjoyed a picnic lunch sponsored by the South Dakota State Medical Association following a morning orientation session in Vermillion.

Margaret Devick, MD and **Daniel Heinemann, MD**, both family practice physicians, are corecipients of the Edward J. Batt, MD Memorial Award for 1989-90. The award is given to the outstanding clinical faculty department member of the year.

Drs Devick and Heinemann are in private practice at their clinic in Canton and travel to Sioux Falls each week to staff at the Family Practice Center. Dr Devick, clinical assistant professor, Department of Family Medicine, received her MD degree from USD School of Medicine in 1981. Dr Heinemann, clinical assistant professor, Department of Family Medicine, received his MD degree from USD School of Medicine that same year.

Sioux Valley Hospital's Medical Staff Executive Committee has elected officers and chiefs of service for the next year. **Dr Ken Aspaas**, president, chief of staff; **Dr John Ochsner**, vice president, vice chief of staff; **Dr Dean Madison**, secretary-treasurer; **Dr Larry Sittner**, past chief of staff; **Dr Ellison Kalda**, surgery; **Dr Larry Schafer**, internal medicine; **Dr Dean Madison**, obstetrics and gynecology; **Dr Dennis Stevens**, pediatrics; **Dr Jim Ryan**, family practice; **Dr Wesley Putnam**, pathology; **Dr Tom Masterson**, radiology; **Dr Gonzalo Sanchez**, neurology-neurosurgery; and **Dr David Hoversten**, orthopedics.

Tom Huber, MD, a family physician in Pierre, has been elected president of the South Dakota Academy of Family Physicians for 1990-91.

Dr Robert Van Demark, Sr, orthopedic surgeon in Sioux Falls, attended the recent meeting of the American Academy of Orthopaedic Surgeons in Chicago on "Current Controversies in Pediatric Orthopaedics".

Dr Milton Mutch, Sioux Falls, was recently elected as the incoming chairman of the Sioux Valley Hospital Foundation Board.

The Sioux Falls Family Practice Residency program has presented the Residency Clinical Teaching Award to **Dr Lee Mabee**, a Sioux Falls obstetrician. Residents and faculty of the Family Practice Residency wish to express their appreciation to Dr Mabee for his voluntary teaching of residents and the time and effort he has put forth during the past academic year.

The teaching award is given annually to a physician who has been a clinical faculty member for at least 3 years; demonstrates support for the residency program; consistently has very good evaluations; and demonstrates clinical excellence.

Dr Willis F. Stanage is Yankton's 1990 Citizen of the Year. He is professor of pediatrics and dean of the Yankton campus of the University of South Dakota School of Medicine.

Dr Stanage is a native of rural Mission Hill. He graduated from Yankton College and the USD School of Medicine. He was the first trained pediatrician in Yankton. Among other things, he is credited as being founder for both the Lewis & Clark Playhouse and the Yankton County Historical Society.

Material Souls, a book of poems by **Winston B. Odland, MD** has been published. This book of poetry with illustrations by Dr Odland is about those earthbound molecular structures which house the soul - known as humans. It is a compilation of poems, some serious, some humorous written during the past 15 years.

The citizens of Winner honored **Dr Robert Stiehl**, for 25 years of medical practice in their city, with an open house. Dr Stiehl, a native of Nebraska, received his medical degree at the University of Nebraska in Lincoln, completed a one-year internship in Omaha, spent two years in the Navy and then came to South Dakota in 1960. He spent five years in Burke before moving to Winner in 1965.

Ila Lushbough of Brookings has been reappointed by Governor Mickelson to the State Board of Examiners for Nursing Home Administrators. The appointment is effective July 1990 and runs for three years.

Dr Verdayne Brandenburg, Sioux Falls, has completed the American Board of Family Practice geriatric medicine examination and been awarded a Certificate of Added Qualification in Geriatric Medicine.

Governor George Mickelson has appointed **Tony Berg, MD**, of Winner, to the State Board of Directors for Educational Telecommunications. This term continues until July 1, 1993.



Secretary of Health **Charles A. Anderson, Ed.D** (right) presents the C.B. Alford Award to **Rodney R. Parry, MD**

Rodney Parry, MD, of the Department of Pulmonary Medicine and the faculty of USD School of Medicine, is the 1990 recipient of the C.B. Alford Award from the State Department of Health. The award is presented annually to a physician who has made a measurable contribution in the area of public health.

Dr Parry has made hundreds of presentations statewide on asthma, emphysema, tuberculosis, lung cancer, clean air, and farmer's lung disease; He was the 1988-89 president of the South Dakota Lung Association's Board of Directors. He received the Lung Association's highest honor, the Agnes M. Holdridge Award in 1989.

A native of Canistota, Dr Parry has worked very hard toward making South Dakota smoke-free by the year 2000. His research of the Hutterite colonies with respiratory disease among agricultural and livestock workers has resulted in many protective measures instituted to promote lung health. For those efforts, his research was recognized abroad, leading to a presentation to the 11th International Congress on Agricultural Engineering in Dublin, Ireland.

Dr Parry is currently serving as Executive Dean and

Professor of Medicine at the USD School of Medicine. He is a graduate of the USD School of Medicine and the University of Wisconsin in Madison.

Dr Jeff Hanson of Huron has passed the geriatric medicine examination and is now a Diplomat in Geriatric Medicine.

Del Janusz of Aberdeen has been reappointed by the governor to the Advisory Council on Outdoor Recreation and Natural Heritage Conservation effective July 1990 through July 1993.

A Sioux Falls cardiologist, **Dr Lloyd Solberg**, has been elected to the Society of Cardiac Angiography and Intervention at the group's annual meeting in Colorado Springs, CO.

The governor has reappointed **Russell Harris, MD** of Sioux Falls to the State Board of Medical and Osteopathic Examiners. This term will expire in 1995.

Drs Thomas J. Huber of Pierre, **Michael Crandell** of Kennebec, **Patricia Peters** of Sioux Falls, **Bernard Heilman** of Madison, **Alfred Shousha** of Britton, **Lowell Swisher** of Kadoka, and **James Gaede** of Mitchell, have all completed continuing education to retain active membership in the American Academy of Family Physicians.

Gary Timmerman, MD of Watertown has been notified that he successfully completed both oral and written examinations and is now a Diplomate of the American Board of Surgery; **Dr Roger Werth** of Aberdeen has been awarded board certification and **Dr Dennis Cavanaugh** of Huron has been recertified by the American Board of Surgery.

continued next page

**YOUR CONTRIBUTION
IS NEEDED TO THE
SOUTH DAKOTA
MEDICAL SCHOOL
ENDOWMENT FUND**

Dr Tad Jacobs is now board certified in General/Family Practice. He qualified to sit for the board examination by completing six years of practice and 600 hours of continuing medical education credit.

Brian Hurley, MD, of the Department of Pulmonary Medicine, Central Plains Clinic, Sioux Falls and the faculty of the USD School of Medicine, has been awarded the 1989-90 chairman's award for special achievement in education as well as the Anton Hyden Memorial Clinical teacher of the year award.

Dr Hurley obtained his medical education at USD School of Medicine and Univ of Nebraska Omaha, receiving his medical degree in 1973.

The governor appointed **Dr Reuben Bareis** of Rapid City and **Senator William Taylor, MD** from Aberdeen to the South Dakota Task Force on Elderly Care.

Dr David Thomas, a specialist in pulmonary medicine in Sioux Falls, passed his boards in critical care medicine, the management of critically ill patients in intensive care units.

Neyton Baltodano, MD, a Sioux Falls physician who specializes in internal medicine, has obtained the status of Fellow in the American College of Clinical Pharmacology. #

The Physicians' HELP Rehabilitation Program

of the

**South Dakota State Medical
Association**

Designed to help physicians addicted to alcohol and/or other drugs as well as those with emotional and psychiatric disorders.

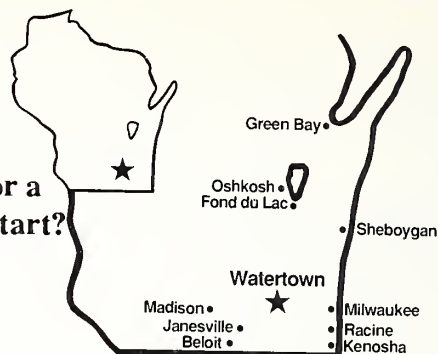
All referrals and information remain confidential.

Call: (605) 336-1965

or

**Write: Physicians' HELP Committee
1323 S. Minnesota Ave.
Sioux Falls, SD 57105**

**Looking for a
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Family Practice/Internal Medicine Opportunities

Our growing southern Wisconsin community of 20,000 needs you now! Watertown, located on the Rock River, 50 minutes from Madison and Milwaukee, offers country living with metropolitan benefits. It's a community that values the family and respects its physicians.

Internal Medicine Specialist

Solo practice opportunity with coverage by established internist. Area needs 2+ additional internists. Financial and management aid to start practice. Office space available in M.O.B. next to the hospital.

Family Practice Physician

Two established FP, single specialty groups are looking to add one, possibly two members. Medical staff offers full family practice privileges including deliveries, stress testing, and EKG interpretation.

Watertown Memorial Hospital offers a recently expanded 100+ bed facility, a young, progressive medical staff of 34 active members and 27 consultants, 24-hr ER physician coverage. Accredited CME program.

Attractive compensation package. Interview expenses reimbursed. Other considerations may include assistance with educational expenses.

Contact: Leo Bargielski, hospital president, at (414) 261-4210, or Dr Ed Hoy, chief of staff, (414) 261-8225. We are located at 125 Hospital Drive, Watertown, WI 53094.

Correspondence

I would like to personally thank you for my scholarship award. The money will definitely help in financing my medical education at USD. Thank you for supporting the medical education of South Dakota's future physicians.

Joseph L. Wilde
Vermillion, SD

OCTOBER: NATIONAL BREAST CANCER AWARENESS MONTH

Physicians: We need your expertise, support and referrals--

The National Cancer Institute and the Secretary of Health, Dr Louis Sullivan, need the support of physicians if the United States is to see a reduction in breast cancer mortality rates. Experts say that women have a 90% chance of surviving breast cancer if it is caught in its earliest, most treatable stage. An estimated **150,000 women** will get breast cancer in 1990 and **44,000 women** will **DIE** from it. One in 10 American women will get breast cancer in her lifetime.

Mammography is the most effective method of detecting breast cancer in its earliest stage. The National Cancer Institute (NCI), the American College of Obstetricians and Gynecologists (ACOG) and 11 other medical organizations recommend that **ALL** women 40 and over have regular mammograms. The guidelines follow:

- Women age 40 and over should have mammograms every one to two years and yearly breast exams by their physicians.
- Women age 50 and over should have annual mammograms and breast exams.
- Adult women of **ALL** ages should perform monthly breast self-examinations.

In February 1990, a survey sponsored by the Jacobs Institute of Women's Health, a nonprofit organization founded by the American College of Obstetricians and Gynecologists, and with technical assistance from the National Cancer Institute, found that women are increasingly aware of the benefits of mammography and there has been a dramatic increase in mammography usage since the 1987 survey. However, the survey information collected once again states the important role that physicians have in referring a patient for a mammogram. Conclusions on the findings on the physician's role in mammography and breast cancer are as follows:

- Nearly three-quarters (74%) of women 40 and

over who have had a mammogram did so because their physician said they should.

- Forty-five percent of women who have not had a mammogram say it is because their doctor has not recommended it.

Conclusions:

- Physicians are a key motivator in getting women to have mammograms regularly.
- If more physicians recommended regular mammograms, then more women would get them.

Women who were surveyed indicated they had specific questions concerning the use of mammography. They did not understand that:

- Mammograms should be a test that is used before symptoms appear.
- Mammograms should be a test that is repeated on a regular basis.
- Women believe that breast cancer is minimal if no family history exists.
- Women have a fear of the amount of radiation they receive from mammograms.
- Women are concerned about the cost of the test.

If women bring up these concerns the following answers are helpful in informing them about mammograms.

- Screening mammograms are for women with no symptoms. The best time to find breast cancer is before you can feel it.
- Mammography can detect breast cancer in its earliest stages--up to 2 years before the patient or physician can feel a lump.
- Eighty percent of women who get breast cancer have no family history of the disease.
- Radiation exposure is minimal. Radiation is measured in units called rads. The usual mammographic examination consists of two films per breast, and should not expose a person to more than 1 RAD per breast.
- The average cost of a screening mammogram is usually between \$100-\$125 but can range from less than \$50 all the way to \$250. Currently, twenty-six states have passed laws requiring insurers to reimburse part or all of the cost of screening mammograms. Policymakers at the federal and state level are working to provide expanded insurance coverage for mammography through Medicaid or Medicare programs.

Other questions that patients ask concern the quality of mammograms offered. Patients might like to know the following:

If the facility is accredited by the American College of Radiology, it has already passed quality standards. If there are no accredited facilities near you, there are five simple questions you can ask a facility. A quality facility will answer "yes" to all of these questions:

- Does the facility use machines specifically designed for mammography? These are called "dedicated" mammography machines.
- Are the mammograms provided by a registered technologist?
- Is the radiologist who reads the mammograms specifically trained to do so?
- Does the facility provide mammograms as part of its regular practice?
- Is the mammography machine calibrated or checked at least once a year?

By encouraging women to seek clinical breast examinations in conjunction with screening mammography, physicians will aid women in fighting breast cancer through early detection. #

Audrey H. Nora, MD, MPH
Assistant Surgeon General
Regional Health Administrator
U.S. Public Health Service
Denver, Colorado

Directory of this Month's Advertisers

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THE SOUTH DAKOTA JOURNAL OF MEDICINE thanks these companies for advertising in this Journal.

YOCON[®]

YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

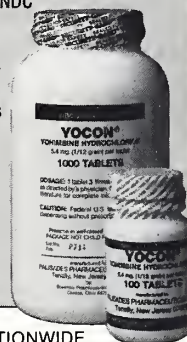
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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South Dakota Foundation for Medical Care

PRO PREAUTHORIZATION PROCESS

SDFMC performs Medicare preauthorization review for ten procedures performed inpatient or outpatient in South Dakota facilities. All preauthorization requests that are approved are given a ten-digit authorization number. Billing with this number allows the hospital/facility and physician to receive payment. The preauthorization procedures are as follows:

- Cataract Extraction
- Carotid Endarterectomy
- Coronary Artery Bypass with Graft (CABG)
- Percutaneous Transluminal Coronary Angioplasty
- Pacemaker Insertion
- Bunionectomy
- Hysterectomy
- Laminectomy
- Cholecystectomy
- Complex Peripheral Revascularization

If oversight occurs and the procedure is not authorized before it is performed, an authorization number can be obtained, for billing purposes, after the patient's discharge and after the medical record is completed. SDFMC will make every effort to expeditiously obtain the chart and conduct the review of the record so a number can be provided for billing purposes.

In the event the procedure is performed on an emergency basis and authorization cannot be obtained before the procedure, a specially assigned ten-digit number can be obtained within two working days following the procedure. This specially assigned number will allow for billing as described in the preprocedure process above. SDFMC, however, is required to also conduct a retrospective review of the chart post discharge. This post-discharge review will be conducted after hospital/facility payment in order to verify the emergency situation. This review will also be conducted to assess necessity of the admission, appropriateness of the quality, and appropriateness of the billed procedures and diagnoses.

The assignment of a special number by the PRO for emergency situations is intended to reduce the delay associated in billing for both the physician and the facility.

This was originally printed in the February 1990 issue of the this Journal.

Family Practice, Internal Medicine and General Surgery Practice Opportunities

Rural Lake Country Community is seeking the above practitioners to join a busy 12 physician multispecialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities and cultural activities abound. Salary and fringe benefits very liberal.

Send curriculum vitae or inquires to:

Lake Region Clinic, PC

Attn: Joel Rotvold

PO Box 1100

Devils Lake, ND 58301

or call collect at (701) 662-2157 for
further information

Family Practice Opportunity

Established family physician with busy practice wishes to relocate. New, modern fully equipped office. Up-to-date full service hospital. Light call schedule. Located in beautiful Northern Black Hills community with excellent skiing, hunting, fishing, golfing, snowmobiling, State University. Arrangements negotiable. Write or Call:

Daniel J. Gebhardt, MD

Medical Arts Building

1320 Tenth Street

Spearfish, SD 57783

Phone: (605) 642-4795

Family Practice Physician

Rural community, 20 miles south of Sioux Falls, South Dakota, is seeking a board certified family practice physician to join a 2 - physician practice. For more information contact:

Canton Family Physicians

128 N Dakota

Canton, SD 57013

Phone: (605) 987-4378

Family Practice - Hospital Sponsored Clinic Opportunity

Dynamic, growth-oriented hospital in beautiful North Central Wisconsin is seeking TWO family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package which is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact:

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Allen McCormick

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EIGHTH ANNUAL NORTH CENTRAL HEART FALL SYMPOSIUM



**FRIDAY, NOVEMBER 2, 1990
RAMKOTA INN CONVENTION CENTER
Sioux Falls, South Dakota**

Featuring nationally prominent speakers addressing issues of importance including sudden cardiac death, current concepts in electrophysiology, personal experience with the implantable defibrillator, and pediatric cardiac surgery.

Denton Cooley, MD - Texas Heart Institute
Win Shen, MD - Mayo Clinic
J. Marcus Wharton, MD - Duke University
John Brown, MD - Indiana University
Bill Nehmer, JD - Patient/Lawyer

For more information, please call (605) 331-5394.

South Dakota Society Of Pathologists

Officers for 1990-91

Bradley B. Randall, MD, President
Karla K. Murphy, MD, Vice President
Donald N. Habbe, MD, Secretary-Treasurer



Future Meetings

November

Sutherland Institute Maxillofacial Trauma, Hilton Plaza Inn, Kansas City, MO, Nov 2-3. 10.5 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Ed, 39th & Rainbow, Kansas City, KS 66103. Phone: (913) 588-4490.

A Comprehensive Series of AMA Workshops to Improve the Financial and Operational Vitality of Your Practice, Chicago, IL, Nov 6-9. Fee: 5 workshops: Ins Processing & Coding \$195; ICD-9 Coding for Drs Offices \$195; Advanced CPT-4 Coding \$140; Med Collections Management \$140; and Business Side of Med \$195. Contact: AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

Alzheimer's Disease 1990: New Dimensions in Research, Adam's Mark Kansas City, Kansas City, MO, Nov 8. Fee: \$145. 6.5 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kans Med Ctr, Off of Cont Educ, 39th & Rainbow, Kansas City, KS 66103. Phone: (913) 588-4490.

Gearing Up for Retirement, Chicago, IL, November 10. Fee: \$275. 3 hrs AMA Category I credit. Contact: AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

Two AMA Workshops: Starting Your Practice and Joining a Partnership or Group Practice, Chicago, IL, Nov 15-17. Fee: \$295. 12 hrs AMA Category I credit. Contact: AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

Strategies in Primary Care Medicine, Holiday Inn East, St Paul, MN, Nov 15-17. Fee: \$245. 16 hrs AMA Category I credit. Contact: Registrar, CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Psychiatric Medicine in the 1990's: The Emergence of Consultation/Liaison Psychiatry, The Pointe at Squaw Peak, Phoenix, AZ, Nov 15-18. Fee: \$325. 21-25 hrs AMA Category I credit. Contact: Academy of Psychosomatic Medicine, 5824 N Magnolia, Chicago, IL 60660. Phone: (312) 784-2025.

Psychopharmacology for the Primary Care Physician, Hennepin County Med Ctr, Minneapolis, MN, Nov 16. Fee: \$25. 3.75 hrs AMA Category I credit. Contact: Robin Hoppenrath, CME, Hennepin County Med Ctr, Off of Academic Affairs, 701 Park Ave, S, #4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

Sexuality in Chronic Illness and Disability, Allis Plaza Hotel, Kansas City, MO, Nov 16. 6.25 hrs AMA Category I credit. Contact: Bernice Jackson, U of Kansas Med Ctr, Off of Cont

Educ, 39th & Rainbow, Kansas City, KS 66103. Phone: (913) 588-4490.

AMA Training Workshop on Depression in Primary Care, Atlanta, GA, Nov 17. AMA Category I credits avail. Contact: Dr Patrick McGaffin, AMA, 515 N State St, Chicago, IL 60610-9986. Phone: (312) 464-5000.

RSNA Scientific Assembly and Annual Meeting, McCormick Place, Chicago, Nov 25-30. Contact: Jodi Skrip, Public Communications, 35 E Wacker Dr, Chicago, IL 60601. Phone: (312) 558-1770.

Nebraska Ob-Gyn Society Scientific Session, Bally's, Las Vegas, NV, Nov 29-Dec 1. Contact Marge Adey, Corr of CME, U of Neb Med Ctr, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-4152.

December

Cancer Pain Management Conference, Hyatt Regency Hotel, Minneapolis, MN, Dec 8. Fee: \$90. 6 hrs AAFP & AMA Category I credit. Contact: Robin Hoppenrath, CME, Off Academic Affairs, Hennepin County Med Ctr, 701 Park Ave, #4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

Advanced Cardiac Life Support Recert, U of Neb Med Ctr, Omaha, NE, Dec 11. Contact: Cindy Hanssen, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-6100. Phone: (402) 559-5919.

January

Pulmonary Function Testing Workshop, St Paul-Ramsey Med Ctr, St Paul, MN, Jan 23-25. 18-23 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

February

Issues in Pediatrics Conference, Arrowwood Resort, Alexandria, MN, Feb 9-10. 8 hrs AMA Category I credit. Contact: Sue Heinze, Children's Hospital MeritCare, 720 Fourth St, N, Fargo, ND 58122. Phone: (701) 234-5737.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

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Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause granulocytopenia at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General:* **Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hypokalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hypokalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hypokalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hypokalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes; lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hypokalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: *Patients on Diuretic Therapy:* Patients on diuretics and especially those in whom diuretic therapy was recently initiated may occasionally experience an excessive reduction in blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC[®] (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ¹⁴C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed and adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgia, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hypokalemia (see PRECAUTIONS), hyponatremia

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: **Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium <130 mEq/L) or with serum creatinine >1 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d. then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380.

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About the Cover

The wild turkey all but disappeared from South Dakota with the intrusion of settlers many years ago. The first successful wild turkey restoration program took place in the Black Hills in 1948. It has been so successful that in 1990, in addition to unlimited Black Hills hunting, 4,180 spring and fall turkey tags have been issued in all West River and 9 East River Counties. (Photo courtesy of the South Dakota Department of Tourism. Photographer Paul Horsted)

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Superior Mesenteric Artery Syndrome: An Approach to the Diagnosis and Management of Upper Gastrointestinal Obstruction of Unclear Etiology

Stuart Fromm¹
Joseph M. Cash, MD²

ABSTRACT

The differential diagnosis of upper intestinal obstruction includes mechanical obstruction, obstruction secondary to systemic disease, and idiopathic intestinal pseudo-obstruction. The causes of these are extensive; however, the majority of cases involve a mechanical etiology. Superior mesenteric artery syndrome (SMAS) is a rare and controversial form of mechanical obstruction with just over 300 well-defined cases described in literature.¹ The diagnosis is often difficult to establish, even after surgery. In addition, this syndrome sometimes may be managed conservatively, leaving a definitive diagnosis unproven. A case of SMAS and a description of the syndrome is presented. The patient was managed conservatively and recovered without difficulty. One of the most difficult diseases to differentiate from SMAS is megaduodenum (intestinal pseudo-obstruction localized to the duodenum). Both entities present as obstruction with an unclear etiology. A reasonable approach to the diagnosis and management of upper intestinal obstruction (including figures, tables, and an algorithm), with emphasis on the above two diseases, is discussed.

Superior mesenteric artery syndrome (SMAS) is a rare and controversial syndrome characterized by signs and symptoms of upper gastrointestinal obstruction. SMAS is thought to be caused by the transverse portion of the duodenum being compressed between the superior mesenteric artery anteriorly and the aorta and spine posteriorly. Synonyms include vascular compression of the duodenum, Wilkie's syndrome, arteriomesenteric duodenal compression, and cast syndrome. This syndrome has been well accepted in the past but recently has been met with much resistance. Some investigators have suggested that this syndrome occurs infrequently, if at all.^{2,3} However, the point of this article is not to argue the existence of SMAS but to offer a reasonable approach to the diagnosis and management of suspected upper intestinal obstruction with an unclear etiology.

Case Report

A 23-year old man presented to the clinic with a one week history of abdominal fullness and emesis which was aggravated by eating meals or drinking fluids. He was constantly thirsty but felt bloated after drinking water. This would worsen until being relieved by vomiting. He had similar episodes in each of the last five years, all occurring at the beginning of the summer soon after the start of summer employment. These jobs consisted of strenuous labor outdoors, such as roofing and construction, in which he would lose a great deal of weight. His estimated weight loss was 30 pounds over the previous two months. The patient was a tall, thin man measuring 6 feet in height and weighing 134 pounds. Blood pressures were 80/60 supine and 64/42 upon standing. Occasional marked, peristaltic movements were noted in the mid to right upper quadrant of the abdomen. The rest of the physical examination, along with routine laboratory tests, were normal. Past medical history and family history were unremarkable. He was not on any medications.

After a 12 hour fast, an upper gastrointestinal study was done with poor results due to fluid retention in the stomach. The patient was later admitted to the hospi-

1. Fourth Year Medical Student, Department of Internal Medicine, USD School of Medicine, Rapid City Campus, Rapid City, SD.
2. Assistant Professor, Department of Internal Medicine, USD School of Medicine, Rapid City Campus. US Public Health Service Hospital, Rapid City, SD.

tal where intravenous rehydration was begun. A nasogastric tube was placed recovering two liters of bile-containing fluid in the first two hours. After 48 hours of nasogastric suction, esophago-gastroduodenoscopy was performed revealing a markedly dilated duodenum to approximately the mid-third portion. The dilation was extensive enough to allow the endoscope to retroflex easily within the duodenum. With external abdominal manipulation, the endoscope was passed into the mid-third portion of the duodenum where no abnormalities distal to the point of obstruction were appreciated. No evidence of mucosal abnormalities were noted throughout the visualized portions including the area of narrowing. An upper gastrointestinal and small bowel study was again performed which also showed dilation of the duodenum to the mid-third portion along with a persistent, abrupt, vertical transition zone between the dilated and non-dilated portions (Figure 1). The remainder of the study was normal.

After 72 hours of intermittent suction, the patient was fed frequent, small, soft meals. His diet was gradually increased without difficulty.



Figure 1

Roentgenogram of obstruction showing abrupt, vertical, linear cut-off at mid-third portion of duodenum (large arrows) and compressed transverse portion of duodenum (small arrows). Duodenum proximal to obstruction is markedly dilated. (Note residual barium in colon from previous study).

DISCUSSION

Superior Mesenteric Artery Syndrome

Etiology: The duodenum is a relatively immobile retroperitoneal structure. The third portion crosses the vertebral column at the level of the third lumbar vertebrae (L3) while the superior mesenteric artery arises from the aorta at the level of the first lumbar vertebrae.⁴ The superior mesenteric artery normally leaves the aorta at an angle of 50 to 60 degrees although average angles have been described as low as 40 degrees.^{5,6} The normal distance between the two vessels at the level of L3 averages 10 to 20 mm. With SMAS, this distance decreases to an average of 2.5 mm while the aortomesenteric angle decreases to an average of 18 degrees.⁵ This anatomical relationship has been described as the "nutcracker".⁷ (Figure 2)

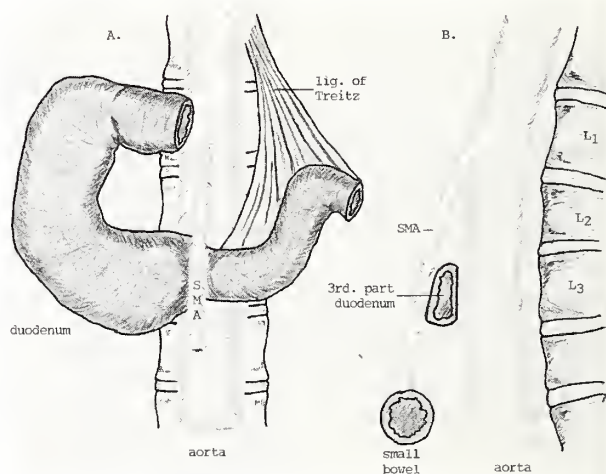


Figure 2

Anatomy demonstrating the third portion of the duodenum in relationship to the superior mesenteric artery (SMA), ligament of Treitz, aorta, and vertebral column (L=lumbar vertebrae). A. Anterior view. B. Lateral view showing the "nutcracker" formed by the SMA and aorta.

The majority of patients with this syndrome tend to be young adults but it may occur in any age group.^{8,9} Acute loss of mesenteric and retroperitoneal fat is thought to permit the superior mesenteric artery to drop posteriorly, trapping the bowel like scissors.⁵ This syndrome is found most commonly in patients with rapid weight loss (usually following injuries or burns), or in patients with an "asthenic habitus".^{5,10} Our patient had an asthenic habitus coupled with a rapid weight loss of 30 pounds. Other factors that may decrease the aortomesenteric angle causing a progression from an unimportant compression to complete obstruction include exaggerated lumbar lordosis, loss of muscle tone in the duodenum or abdominal wall musculature, rapid growth in height, prolonged bed rest, and the application of external pressures, such as the use of a body cast in the treatment of scoliosis or vertebral fractures

(hence the name cast syndrome). Additional etiologies include an abnormally high position of the ligament of Treitz with an upward displacement of the duodenum or an unusually low origin of the superior mesenteric artery.^{1,10-12}

Signs/Symptoms: Our patient manifested the classic signs and symptoms of duodenal obstruction consistent with SMAS, i.e. nausea, bile emesis, and epigastric bloating, discomfort or pain. These findings are exacerbated by eating and relieved by vomiting. There may be an associated weight loss. These symptoms may remit in the prone, knee-chest, or left lateral decubitus position. The syndrome may also be chronic and intermittent.^{11,13}

Diagnosis: Whether a diagnosis can be assured is controversial; however, a diagnosis can be strongly suggested by a characteristic history and radiographic findings. There is usually significant dilation of the first and second portions of the duodenum (and frequently stomach) along with an abrupt, vertical, linear cut-off in the third, transverse portion of the duodenum overlying the spine. The mucosal folds remain intact.^{5,13-15} This was clearly seen in the endoscopic and barium studies of our patient (Figure 1). There may be delay in transit of barium through the gastroduodenal region. In addition, there may be abnormal peristalsis proximal to the obstruction with relief upon change in postural position.^{13,16}

It has been suggested that hypotonic duodenography is of diagnostic value in evaluating these patients.^{13,17} Angiography has been suggested to be diagnostically significant if the aortomesenteric angle is less than 25 degrees, but the value of this test is questionable.^{5,13} Routine laboratory tests are usually not helpful.

A diagnosis of peptic ulcer disease, gastritis, pancreatitis, or biliary disease should not rule out superior mesenteric artery syndrome as there have been associations between these entities.^{8,17}

Treatment: Conservative measures of treatment should be attempted first, as was done with our patient. Decompression by nasogastric suction with intravenous fluid and electrolyte replacement may be necessary in the acute situations and, when combined with alterations in posture, have been demonstrated to abort a full-blown obstruction.^{4,10} Conservative measures include small but frequent feedings of pureed food diluted to the consistency of soup. The patient should be placed in the prone, knee-chest, or left lateral decubitus position. Enteral feeding past the obstruction or the use of hyperalimentation may also restore retroperitoneal fat and establish a positive nitrogen balance but carry a significant amount of risk and expense.^{1,18-20}

Approximately 75% of patients come to surgery.¹ Indications for surgery include failure of medical treatment in alleviating symptoms or the preference of

the patient for surgical correction rather than prolonged conservative management.⁸ There are generally three operations accepted in the treatment of SMAS: bypass procedures such as duodenojejunostomy and gastrojejunostomy, and lysis of the ligament of Treitz with mobilization of the ascending duodenum as described by Strong.²¹ Duodenojejunostomy obtains excellent results and is generally accepted as the procedure of choice.^{1,8,20,22,23} However, it has been suggested that lysis of the ligament of Treitz may be the treatment of choice, especially in children, as it does not violate the bowel.^{9,11,24} Wayne, et al, advocates extensive duodenal and jejunal mobilization in addition to lysis of the ligament of Treitz.⁹ Nevertheless, duodenojejunostomy may be preferred when intraperitoneal adhesions make Strong's operation difficult.¹¹

Differential Diagnosis: The differential diagnosis of upper gastrointestinal obstruction is extensive and beyond the scope of this article (Tables I & II). One of the most difficult diseases to differentiate may be chronic idiopathic intestinal pseudo-obstruction, especially if localized to the duodenum in which case it has been called megaduodenum. These patients present with recurrent attacks of obstruction which are highly variable in frequency, severity, and duration. However, this disease usually progresses to a point where the syndrome never fully resolves and the patient manifests constant symptoms. This disease may also be familial.¹⁰ Barium studies will not show a mechanical obstruction; however, most will show a prolonged transit time of barium to the colon.^{26,27} The etiology of this syndrome can be divided into two basic groups: (1) abnormalities of the smooth muscle in the intestine and (2) abnormalities of the myenteric and submucosal plexus of nerves.²⁶ Chronic intestinal pseudo-obstruction is a motility disturbance of smooth muscle and is not restricted to the small bowel; it may affect every part of the gastrointestinal tract plus other smooth muscle organs such as the esophagus, ureter, and bladder.²⁸

Recently it has been suggested that the diagnosis may be established by manometric studies along with radionuclide studies of gastric emptying and small bowel function, thus avoiding the requirement of a full thickness biopsy. Manometric studies may distinguish between the neuropathic and myopathic variants. If the neuropathic variant is suspected, a more extensive search for an underlying etiologic factor is required to rule out a disturbance in the extrinsic neural supply, such as a brain tumor or an autonomic neuropathy.²⁸

Treatment of chronic idiopathic intestinal pseudo-obstruction to date mainly consists of nutritional supplementation. Surgical intervention may be tried in carefully selected patients such as those with localized disease. Prokinetic agents and venting enterostomy are being evaluated but management is currently difficult because of the lack of efficacious medications, exten-

TABLE I

Causes of Small Intestinal Obstruction^{5,10,26}

I. MECHANICAL

- A. **Blockage:** gallstones, foreign bodies, bezores, meconium, parasites (ascaris), tapeworms
- B. **Intrinsic bowel lesions:**
 - 1. **Congenital:** atresias, stenosis, malrotations, cysts, reduplications, Meckel's diverticulum, malformations
 - 2. **Inflammatory:** regional enteritis, tuberculosis, actinomycosis
 - 3. **Tumors**
 - 4. **Miscellaneous:** Intussusception, traumatic strictures, endometriosis, irradiation strictures, hematoma within bowel wall
- C. **Extrinsic bowel lesions**
 - 1. **Adhesions**
 - 2. **Hernias**
 - 3. **Compression secondary to external objects:** abscess, tumor, annular pancreas, pregnancy, superior mesenteric artery, retroperitoneal hematoma

II. IDIOPATHIC INTESTINAL PSEUDO-OBSTRUCTION

- A. **Myopathic**
- B. **Neuropathic**

III. INTESTINAL PSEUDO-OBSTRUCTION (ADYNAMIC ILEUS) SECONDARY TO SYSTEMIC ILLNESS

- A. **Diseases involving intestinal smooth muscle**
 - 1. **Collagen vascular diseases:** scleroderma, dermatomyositis/polymyositis, systemic lupus erythematosus
 - 2. **Infiltrative muscle disorders:** amyloidosis
 - 3. **Miscellaneous:** ceroidosis, nontropical sprue, infarction
- B. **Metabolic disorders:** hypothyroidism, diabetes mellitus, hypoparathyroidism, pheochromocytoma, uremia, porphyria
- C. **Neurologic disease:** Parkinson's disease, Chaga's disease, Hirschsprung's disease, familial autonomic dysfunction (Shy-Drager syndrome), psychosis, CNS lesion/injury
- D. **Pharmacologic causes**
 - 1. **Drugs:** phenothiazines, tricyclic antidepressants, antiparkinsonian medications, ganglionic blockers, clonidine, cathartic abuse
 - 2. **Toxic compounds:** lead poisoning, amanita (mushroom) poisoning
- E. **Electrolyte disturbances:** hypokalemia, hypocalcemia, hypomagnesemia
- F. **Infectious Disease:** pneumonia, peritonitis, empyema, sepsis
- G. **Miscellaneous:** jejunoileal bypass, jejunal diverticulosis

Table II

Causes of Small Intestinal Obstruction (Incidence)⁵

Causes	Per Cent Incidence
Adhesions	60
External Hernia	15
Neoplasm	
extrinsic	12
intrinsic	3
Miscellaneous	10

sion of the disease to other regions, and complications of parenteral nutrition.²⁸

Intestinal malrotation with duodenal bands may present with similar symptoms but can be diagnosed by characteristic radiologic findings.¹⁴ Scleroderma usually has associated esophageal involvement along with a decrease in peristaltic activity as contrasted to an increase in peristaltic activity in SMAS.⁵

As stated in the introduction, the purpose of this article is to suggest a reasonable approach to the diagnosis and management of upper intestinal obstruction with an unclear etiology (Figure 3). Preliminary examinations of suspected obstruction include barium studies and possibly endoscopy. This will differentiate between mechanical and non-mechanical etiologies. Mechanical causes are generally managed by surgery, although our patient's case of SMAS was treated successfully by conservative measures. If mechanical obstruction is not suggested by preliminary studies, obstruction secondary to a systemic cause should be ruled out. This is usually suspected by characteristic histories, signs, symptoms and laboratory studies. If a systemic cause is not suspected, manometric and radionuclide studies of bowel function will help evaluate a primary cause for pseudo-obstruction. If primary pseudo-obstruction is felt to be the cause, a full thickness biopsy may be warranted to confirm the diagnosis because of the difficulty in management. In addition, if localized, primary pseudo-obstruction may

be managed surgically.

The patient described in this report was felt to have SMAS by his characteristic history and symptomatology, his tall, thin, body habitus and his radiologic findings. Although SMAS was not diagnosed by more invasive studies or surgical exploration, it was felt not to be prudent as he was responding well to conservative medical management. SMAS is a very controversial diagnosis but must be considered in patients with upper gastrointestinal obstruction. An approach as outlined in Figure 3 may not confirm the diagnosis but may accomplish the overall goal of returning normal bowel activity back to the patient.

DISCLAIMER

The views expressed in this article are those of the authors and not necessarily those of the Indian Health Service.

REFERENCES:

1. Jones PA, Wastell C: Superior mesenteric artery syndrome. *Postgrad Med J* 1983;59:376-379.
2. Cimmino CV: Superior mesenteric artery syndrome. *NY St J Med* 1976;76:986-988.
3. Lewis JR, Gore RM, Ballantyne GH: Superior mesenteric artery syndrome. *Am J Surg* 1984;148:630-632.
4. Moskovich R, Cheong-Leem P: Vascular compression of the duodenum. *J R Soc Med* 1986;79:465-467.
5. Way, LW: Current Surgical Diagnosis and Treatment. Norwalk, Conn.; San Mateo, Calif; Appleton and Lange, 1988;pp 457, 568.
6. Derrick JR, Fadhli HA: Surgical anatomy of the superior mesenteric artery. *Am Surg* 1965;31:545-547.
7. Anderson JE: Grant's Atlas of Anatomy, Baltimore, London; Williams and Wilkins; 1983, Fig.2-101.
8. Barner HB, Sherman CD Jr: Vascular compression of the duodenum. *Int Abs Surg* 1963;117:103-118.
9. Wayne ER, Burrington JD: Duodenal obstruction by the superior mesenteric artery in children. *Surgery* 1972;72:762-768.
10. Sleisenger F: *Gastrointestinal Disease*, Philadelphia, WB Saunders Co, 1989, pp 231-232, 377-379, 1921-1922.
11. Hines JR, Gore RM, Ballantyne GH: Superior mesenteric artery syndrome. *Am J Surg* 1984;148:630-632.
12. Mansberger AR, Hearn JB, Byers RM et al: Vascular compression of the duodenum. Emphasis on accurate diagnosis. *AM J Surg* 1968;115:89-96.

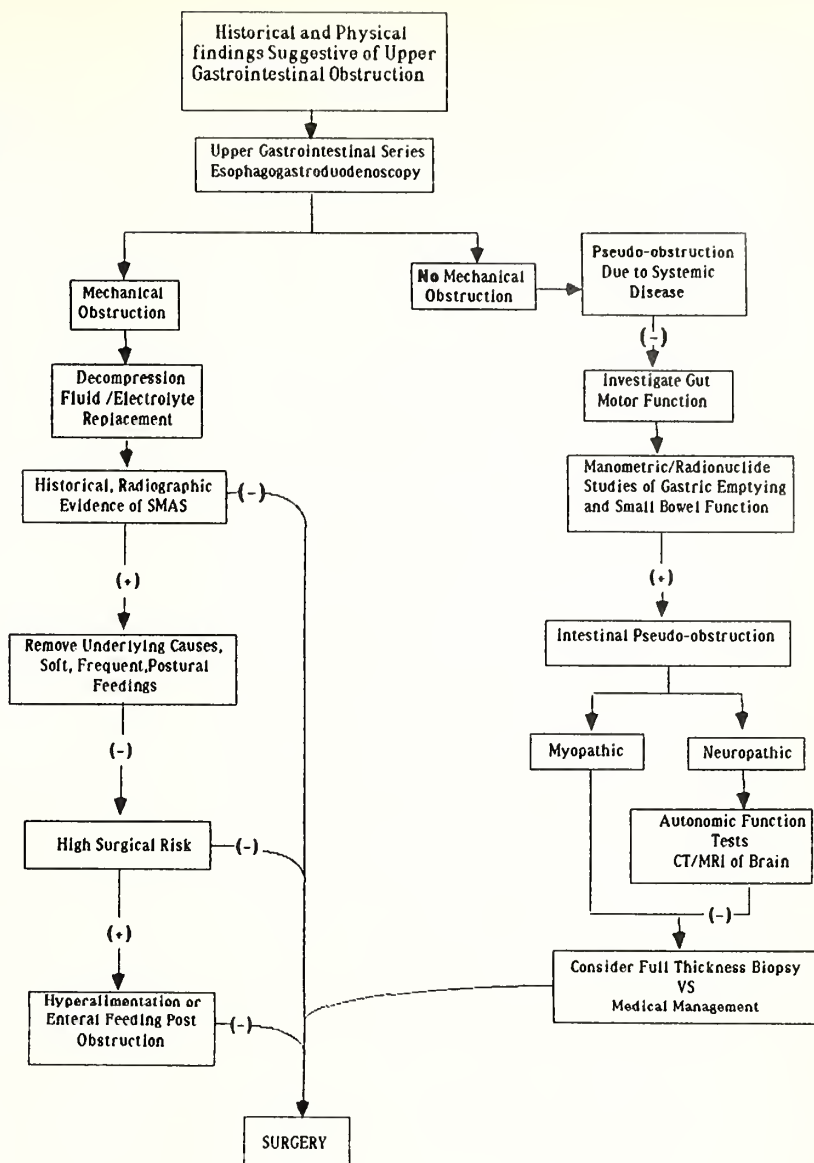


Figure 3

Generalized algorithm for the investigation and treatment of suspected upper gastrointestinal obstruction.

SMAS - superior mesenteric artery syndrome
 Upper GI - upper gastrointestinal study
 EGD - esophagogastroduodenoscopy
 CT - computerized tomography
 MRI - magnetic resonance imaging

13. Gustafsson L, Falk A, Lukest PJ, Gamkion R: Diagnosis and treatment of superior mesenteric artery syndrome. *Br J Surg* 1984;71:499-501.
14. Eisenberg RL: *Gastrointestinal Radiology*, Philadelphia, JB Lippincott Co, 1983, pp 389-390, 403-410.
15. Anderson WC, Vivit R, Kirsh IE, Greenlee HB: Arterioesenteric duodenal compression syndrome. *Am J Surg* 1973;125:681-689.
16. Eaton SB, Ferrucci JT: *Radiology of the Pancreas and Duodenum*, Philadelphia, WB Saunders Co, 1973, pp 318-

17. Lukes PJ, Rolny P, Nilsson AE et al: Diagnostic value of hypotonic duodenography in superior mesenteric artery syndrome. *Acta Chir Scand* 1978;144:39-43.
18. Munns SW, Morrissey RT, Golladay ES, McKenzie CN: Hyperalimentation for superior mesenteric-artery (cast) syndrome following correction of spinal deformity. *J Bone Joint Surg* 1984;66A:1175-1177.
19. Burrington JD, Superior mesenteric artery syndrome in children. *Am J Dis Child* 1976;130:1367-1370.
20. Kelley TR, Sweeney JT: Vascular compression of the duodenum. *Am Surg* 1966;32:338-342.
21. Strong EK: Mechanics of aortomesenteric duodenal obstruction and direct surgical attack upon etiology. *Ann Surg* 1958;148:725-730.
22. Jones AS, Carter R, Smith LL et al: Arteriomesenteric duodenal compression. *Am J Surg* 1960;100:262-277.
23. Lee CS, Mangla JC: Superior mesenteric artery compression syndrome. *Am J Gastroenterol* 1978;70:141-150.
24. Akin JR Jr, Gray SW, Skandalakis JE: Vascular compression of the duodenum. Presentation of ten cases and review of the literature. *Surgery* 1976;79:515-522.
25. Hardy, *Hardy's Textbook of Surgery*, Philadelphia, JP Lippincott Co, 1988, pp 475.
26. Richards WO, Williams LF, Jr: Obstruction of the large and small intestine. *Surg Clin N Am* 1988;68:355-376.
27. Rohrmann CA Jr, Ricci MT, Krishnamurthy S, et al: Radiologic and histologic differentiation of Neuromuscular disorders of the gastrointestinal tract. *AJR* 1984;143:933-941.
28. Colemont LJ, Camilleri M: Chronic intestinal pseudo-obstruction: diagnosis and treatment. *Mayo Clin Proc* 1989;64:60-70.



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President's Page



Jerome A. Eckrich, Jr, MD, President, South Dakota State Medical Association

This is the month of November and my sixth President's Page of 1990. In researching other famous events which have transpired over the years in the month of November, some of the following have made it one of the most interesting months in our history. Traditionally, November is the month of Thanksgiving and the month when we start selling Christmas seals. On November 1, 1950, Puerto Rican Nationalists attempted to assassinate President Truman. November 1, is also the anniversary of our nation's test explosion of an H-bomb and the beginning of the Algerian Revolution against the French. November 1, was the day in 1870 when the United States weather bureau made its first observations.

Abraham Lincoln was elected president, November 6 in 1860. November 11, 1918, was the first Armistice Day, now celebrated as Veterans Day, ending the worst war in the history of mankind up to that time. On November 19, 1620, the Mayflower arrived off Cape Cod. On November 23, 1848, the first women's medical society was founded. What I found interesting in reading about this group was that the officers of the Female Medical Educational Society, as they were known, were all men. Times have certainly changed since the men organized the Female Medical Educational Society!

On November 26, 1716, the first lion was exhibited in America. This year on November 22nd, is Thanksgiving Day in America. November 22, 1963, was also the day that John F. Kennedy was assassinated. It also

NOVEMBER 1990

seems somewhat fitting in this time of change and turmoil in American medicine that on November 22, 1906, SOS was adopted as the international distress signal. Of all of the notable events which have occurred over the course of history in the month of November, Thanksgiving Day is without a doubt the holiday giving the month its greatest claim to fame. Although the pilgrims supposedly introduced the concept of Thanksgiving in the 1600's, it was on the 28th of November, 1863, that the nation officially observed the first Thanksgiving Day set aside by national proclamation.

Traditionally, Thanksgiving is a time of reflection, appreciation, and gratitude for the many bounties which we have all been privileged to enjoy in a free and prosperous society. However, gratitude is an attitude and it is interesting to note how widely divergent this attitude may be depending upon the outlook of the observer. From Mark Twain's somewhat cynical attitude, "Whoever has lived long enough to find out what life is, knows how deep a debt of gratitude we owe to Adam, the first great benefactor of our race. He brought death into the world." Samuel Johnson's attitude on gratitude was somewhat more charitable feeling that, "Gratitude is a fruit of great cultivation; you do not find it among gross people." On a still more positive note from Ode For Music was the passage, "Sweet is the breath of vernal shower. The bees collected treasures sweet. Sweet music's melting fall, but sweeter yet the still small voice of gratitude."

Though besieged by political and economic forces bent on weakening and frustrating our efforts to provide better care for our patients, we can be grateful that we have an outstanding healthcare delivery system worth defending and preserving. Despite our economic difficulties, we still do not have to cope with 50% a year inflation and energy costs several fold what we are paying here in the United States. One need only to visit any country outside of our own borders to more fully appreciate the blessings which we enjoy here at home. Reflection and self-criticism are important in order to maintain objectivity and in order for a person or a nation to improve itself; however, such self-criticism must also be balanced by a positive sense of satisfaction and pride in what has already been accomplished.

In closing I would encourage all of us to approach Thanksgiving with a sense of gratitude, "For the homes that with purest affection are blessed, for the season of plenty and well deserved rest, for our country extending from sea to sea, for the land that is known as "the land of the free!"

Thanksgiving! Thanksgiving!

Jerome A. Eckrich

Correspondence

Recognition for Following Traditional Roles

My compliments to Jacalyn Slingsby, president, South Dakota State Medical Association Auxiliary, for her article, "Recognition for Following Traditional Roles". The need for women to work in factories in World War II was the beginning of women membership in unions. That was the beginning of the end of the tradition that unions had always fought for; namely, the "living wage" for the father of the household. Beginning in 1964, the federal government decreed not merely equality of opportunity, but equality of results, and the rest is history. I remember a hunting companion in Kansas who was a telephone lineman. When I told him that the feminists had switched from "equal pay for equal work" to "equivalent pay for equivalent work," and that the skills and training of a telephone lineman had been decreed equal to those of a secretary, his response was, "I'm gonna learn to type." I don't know if he ever did. I think he is still fixing lines in Kansas winters, but he is not making enough to keep his wife at home, so she is out doing something other than raising a family, also.

The publication of *The Feminine Mystique* was the beginning of the next stage of active deprecation of women who were content at being wives and mothers, by feminists who wanted to be neither, and who wished to be regarded not merely as the equal of wives and mothers, but as their moral superiors. There are reasons for everything and excuses. In the case of feminism, the excuse has been "equality". The reason has been resentment of men. As any psychiatrist knows, one can treat hatred, but one cannot treat resentment. By enacting national policies based on resentment, feminists have thrown sand into a machine which works none too well at best, and the pendulum has swung pretty far to the left.

Recognitions such as those by Jacalyn Slingsby that the "traditional role" has value come none too soon. The family is disintegrating, not so obviously in South Dakota, but very obviously in the major population centers where 80% of children born in the ghettos have no visible father, and the illegitimacy rate in the whole population has doubled in the last 10 years. An increasing number of pregnant young women marry, not the father of their child, but the state. Kids raised by mothers with no father have a spectacular rate of failure in school and in life.

Finally, we have aborted 30% of an entire generation. If this had happened in a war, we would be stricken. As it is, 13 million illegal immigrants have partly taken the place of that generation and will help to keep the social security system alive since most of them come here for jobs. However, the quality of the

next generation is at serious risk because of the disintegration of the family and of the family ethic.

I vote with Mrs Slingsby for the "traditional role". Specifically, the best thing a father can do for his children is to love their mother. The next best thing he can do is to love them. I am for anything that makes it easier for that to happen.

James W. Wiggs, MD
Yankton, SD

Thank You

I would like to thank the South Dakota State Medical Association for the generous scholarship award.

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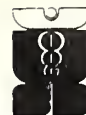
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Thyroid Hormone Replacement: Indications, Dosage, and Monitoring

Priscilla F. Bade, MD¹
Angelina Trujillo, MD²

Introduction

While the history of thyroid supplementation dates back to 1882, there have been recent changes in thyroid preparations which merit review. There also have been advances in thyroid function testing which can help the clinician monitor biochemical response and avoid overtreatment with thyroid hormone. We will review the indications for thyroid hormone supplementation, the currently available thyroid hormone preparations and the recommendations for laboratory monitoring of replacement therapy.

Thyroid Hormone Physiology

A brief review of thyroid physiology is helpful to understand the rationale for thyroid hormone therapy and monitoring.

Thyroxine (T₄) and triiodothyronine (T₃) are produced in the thyroid gland in a 10:1 ratio. In the peripheral circulation the ratio of T₄:T₃ is approximately 100:1. The biologically active hormone is T₃ of which only 20% of circulating T₃ arises from the thyroid gland with the remainder being derived from the peripheral deiodination of T₄. Both T₄ and T₃ are bound to thyroid-binding globulin (TBG) and other plasma proteins, with only 0.03% of T₄ and 0.3% of T₃ being free in the circulation.

Thyroid hormone secretion is regulated by thyroid stimulating hormone (thyrotropin or TSH) produced by the pituitary, and by the intrathyroidal iodine level. TSH secretion is determined by the intracellular level of T₃ in the pituitary and by thyrotropin-releasing hormone (TRH) which is produced by the hypothalamus. In the presence of iodine deficiency, which is common

in inland regions of the United States, thyroid enlargement and goiter are due to low hormone secretion by the thyroid gland with compensatory increase in TSH stimulation to maintain euthyroid hormone levels.

Patients with elevated TBG levels will have high total T₄ levels with normal free T₄ levels and a normal free T₄ index (FTI). TBG levels are increased in pregnancy, liver disease and other high estrogen states and are decreased in the nephrotic syndrome, acromegaly and during steroid therapy.¹ Patients with familial dysalbuminemic hyperthyroxinemia will have both high total T₄ and T₃RU values and a normal TSH. This results from an abnormal affinity of TBG for T₄. Care must be taken to identify such patients to avoid unwarranted treatment for hyperthyroidism or, if they become hypothyroid, not to undertreat them on the basis of "normal" T₄ levels.²

Indications For Treatment

Thyroid hormone therapy is indicated for the treatment of primary or secondary hypothyroidism (see Figure 1). Patients with benign thyroid nodules or multinodular goiter also may require thyroid hormone therapy to suppress TSH stimulation of thyroid tissue.

While many hypothyroid patients present with the classical symptoms of fatigue, weight gain, hoarseness, cold intolerance and constipation, others may present only with cardiac manifestations (congestive heart failure, conduction delay) or psychiatric disorders (depression, myxedema madness).⁴ Still other patients may be clinically asymptomatic and have chemical hypothyroidism based on thyroid function screening tests. Patients with a history of prior thyroid disease or of thyroid ablation are at increased risk for primary hypothyroidism, while secondary hypothyroidism may be present in the patient with a history of head trauma, intracranial surgery or cerebrovascular disease.

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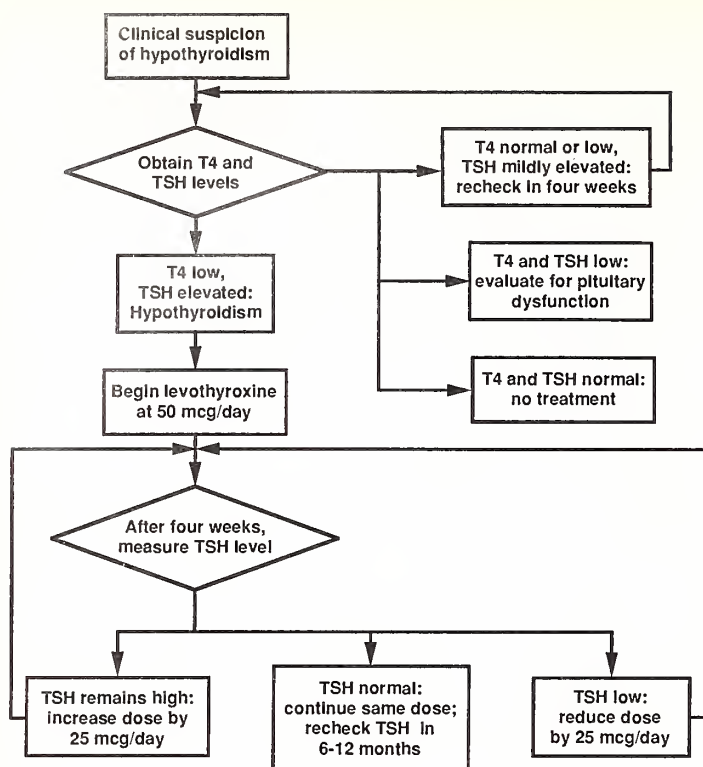


Figure 1

Therapy of hypothyroidism

The diagnosis of hypothyroidism is confirmed by a low T₄ and a TSH level that is usually greater than three times the upper limit of normal. In this situation thyroid hormone replacement is indicated. Borderline or low normal T₄ with slightly elevated TSH values should be repeated after an interval of four weeks.⁵ If these values continue to be abnormal, low dose thyroid supplementation to bring the TSH into the normal range is indicated.⁶ In secondary hypothyroidism both T₄ and TSH will be low, suggesting pituitary insufficiency. The patient with hypothyroidism and hypopituitarism will require glucocorticoid replacement prior to initiating thyroid replacement to avoid precipitation of acute adrenal insufficiency. Patients who are seriously ill may have borderline low T₄ levels and low to normal T₃ levels with TSH being normal or minimally elevated ("euthyroid sick"). Such patients do not require thyroid hormone replacement. T₄ and TSH levels should be obtained when the patient becomes stable to rule out true hypothyroidism.³

Thyroid supplementation is not indicated for patients who have subjective complaints suggestive of thyroid deficiency, i.e. chronic fatigue and obesity, but have normal T₄ and TSH values. Treatment with thyroid hormone will be of no benefit in these patients and may even be harmful since thyroid hormone supplementation can induce symptoms of hyperthyroidism including tachycardia, weight loss and tremors. In patients with

underlying cardiovascular disease, excess exogenous thyroid hormone can precipitate angina. With long term use, excessive thyroid hormone is associated with accelerated osteoporosis.

It may be helpful to reassess the patient who has been placed on thyroid replacement in the past without documented hypothyroidism. After discontinuation of thyroid medication, T₄ and TSH levels should be checked at four and eight weeks to evaluate for hypothyroidism.⁷ If T₄ and TSH remain normal, thyroid hormone replacement is not indicated.

Thyroid hormone therapy may be indicated for thyroid nodules or multinodular goiter. Traditionally, the goal has been to suppress TSH to an undetectable level which frequently produces symptomatic hyperthyroidism. With the new sensitive TSH assay, it is possible to maintain the TSH level in the low normal range (0.2-0.5 uIU/ml) without elevating T₄ into the hyperthyroid range).⁸

Among women with primary hypothyroidism, the TSH may become elevated during pregnancy requiring an upward adjustment in thyroxine replacement dosage.⁹ With parturition, TSH returns to normal and thyroxine dosage can be decreased.

Thyroid Hormone Preparations

There are significant differences between currently available thyroid preparations which can impact on therapy. Available preparations range from "natural" products, such as desiccated thyroid preparations, to pure synthetic hormone preparations (see Table I). Both prescription and over-the-counter preparations can vary in thyroid hormone content.

Over-the-counter thyroid tablets contain thyroid hormone in varying amounts, derived from animal glands. While labels state that the hormone has been inactivated, the product may still contain small amounts of active hormone. Patients frequently purchase these preparations for reasons other than thyroid replacement therapy.¹⁰

Desiccated thyroid products were the earliest available form of thyroid hormone. Derived from beef or pork thyroid, these products are standardized according to total organic iodide content or to biological activity in rats. T₃, the bioactive hormone in these preparations, may vary widely from one manufactured lot to the next. Patients taking these preparations may experience symptoms of hyperthyroidism at times, and be inadequately replaced at other times, depending on

Table I
Thyroid Hormone Preparations*

Preparations	Origin	T ₄ :T ₃ ratio	Comments
Thyroid tablets USP Thyroglobulin	Thyroid extract	Varies from 2:1 to 5:1	Standardized by total organic iodide content; active hormone content varies
S-P-T Armour	Dessicated pork thyroid	Varies from 2:1 to 5:1	Standardized by total organic iodide content; active hormone content varies
Liothyronine (Cytomel)	Synthetic T ₃	0:1	Short plasma half-life leads to uneven plasma levels, making dosage regulation difficult. Does not replace T ₄
Liotrix (Euthroid, Thyrolar)	Synthetic T ₃ and T ₄	4:1	Provides higher than physiologic ratio of T ₃ to T ₄
Levothyroxine (Synthroid, Levothroid)	Synthetic T ₄	1:0	Converted peripherally to T ₃ ; provides relatively stable plasma levels. Actual T ₄ content of tablet may vary from stated value

*Adapted from Salman et al., Nov 1989

the hormone content of the lot they are taking. In today's medical practice, there is no indication for the use of dessicated thyroid preparations.

Liothyronine, or T₃, is available in synthetic form. This is the biologically active hormone used by the body tissues. Its half-life is short, necessitating multiple daily doses to maintain a relatively constant plasma level. T₃ cannot be converted to T₄ in the body. Hypothyroid patients who have impaired absorption of T₄ may respond to therapy with synthetic T₃.¹¹ T₃ is used diagnostically in conjunction with thyroid scanning to assess autonomously functioning thyroid tissue. It is most commonly used for short-term hormonal replacement in hypothyroid patients who have been treated for thyroid cancer. The longer acting thyroxine replacement is discontinued at least four weeks prior to radioiodide scanning for metastatic disease.¹² These patients can be continued on T₃ up to 7-10 days prior to scanning without interfering with the radioiodide uptake on scan.

Mixtures of synthetic T₃ and T₄ are commercially available, usually in a T₄:T₃ ratio of 4:1. This differs from the physiologic ratio of 10:1 in the thyroid itself and 100:1 in the plasma. Patients taking these preparations may have excessively high T₃ plasma concentrations in the face of normal to low-normal T₄ concentrations.¹³ For this reason, these products should also be avoided.

The optimal replacement product appears to be synthetic levo-thyroxine (T₄) which has a half-life of 6-7 days and is converted in the tissues to T₃. However, different commercial preparations of levo-thyroxine may vary in their biologically available T₄ content. Patients whose dose was standardized on Synthroid (Boots-Flint preparation) prior to 1982 when it contained about 75% of the stated content should have their dosage reas-

sessed. They now may be receiving excessive doses of thyroid hormone, since the newer tablets contain the amount indicated on the label. Generic preparations may vary in levo-thyroxine content from lot to lot, with some containing as little as 34% of the stated amount of hormone.¹⁴ Therefore, patients who are changed from one brand of levo-thyroxine to another should be reassessed to ensure that they are receiving adequate replacement.

Thyroid Replacement Dosage

There is significant variability in individual thyroid hormone requirements with the daily maintenance dose of levo-thyroxine varying from 75 to 150 micrograms (mcg). Patients who have had gastric bypass surgery or who have malabsorption from other causes may require higher doses of thyroid hormone to achieve euthyroid status.¹⁰

Elderly patients are unique and may require lower doses of thyroxine due to an age-related decrease in fractional thyroxine degradation rate. The average dosage is about 75% of that needed by younger adults. Patients with symptomatic cardiovascular disease may require subtherapeutic thyroxine doses to avoid precipitation of angina pectoris, although with modern antianginals this complication can be avoided.¹⁴

Therapy should be initiated with levo-thyroxine at a dose of 50 mcg per day. In the elderly or very debilitated patient, 25 mcg per day is suggested. In young, healthy patients the dose can be increased by 25 mcg at weekly intervals until 100 mcg per day is achieved. In the elderly, a slower titration may be required. The serum TSH should be evaluated four weeks after a dosage of 100 mcg per day is achieved. Because there is a lag time before TSH levels equilibrate, the one-month interval allows TSH levels to stabilize following initiation of

therapy. Levo-thyroxine dosage can be reduced or increased to maintain a TSH within the normal range (0.5-7 uIU in most laboratories). TSH can be evaluated four weeks after each dosage change. Once the dosage is stable, it is adequate to obtain TSH levels every 6-12 months.

For treatment of goiter or thyroid cancer, high doses of levo-thyroxine may be required. The goal of therapy is to suppress TSH secretion to 0.2-0.5 uIU/ml in order to prevent thyroid stimulation. Dosages may require adjustment to avoid symptoms of hyperthyroidism.

During pregnancy, hypothyroid women require TSH assessment every two months. If TSH increases above normal, thyroid replacement dosage should be increased by 25 mcg until the TSH is within the normal range as recommended above.⁹

Monitoring Thyroid Hormone Therapy

Many tests have been developed to evaluate thyroid function. Those most commonly used to monitor thyroid hormone therapy include the total T₄ and the TSH level.

The total serum T₄ measures both bound and free T₄. Since the majority of T₄ is protein-bound, this test will be affected by changes in the level of thyroid-binding proteins. It is not a good measurement of free T₄, and therefore does not accurately reflect the adequacy of replacement.

The thyrotropin level, or TSH, is probably the most useful test. It measures the physiologic response to available thyroid hormone, and is unaffected by alterations in thyroid binding proteins. The new "sensitive" TSH assay (s-TSH) has expanded the ability to measure TSH values as low as .01 uIU/ml.¹ A low s-TSH is indicative of chemical hyperthyroidism in the patient on thyroid replacement. However, in patients with hypopituitarism or TSH deficiency, the s-TSH will not be helpful since these patients have very low or no TSH. Such patients must be followed using the total T₄ level as a guide to optimize therapy.

The timing of thyroid function testing with relation to the dose is important. T₄, T₃ and free T₄ levels rise rapidly after the initial dose, then drift downward. TSH levels show little change in patients who are replaced adequately. In patients who have elevated TSH levels from untreated hypo thyroidism, the TSH level will begin to decrease within six hours of the initial dose. This suggests that thyroid function studies should be obtained prior to ingestion of the daily dose in order to avoid transient fluctuations of TSH.¹⁶ After the dosage is changed, TSH may require four weeks to reach a true steady state concentration; therefore, a TSH level obtained before this time may not reflect the adequacy of therapy.⁷

Conclusion

Thyroid replacement is fairly straightforward using standardized synthetic hormone preparations. Initially, dosages should be titrated monthly using the TSH as a marker of adequate replacement. Once the dosage is stable, TSH should be checked at least annually, and every six months in elderly patients. Use of TSH measurements will avoid difficulty with variation in thyroid-binding proteins. Dosages should be adjusted appropriately for the age of the patient as well as for underlying conditions such as malabsorption, cardiovascular disease and pregnancy.

REFERENCES

1. De los Santos ET, Mazzaferri EL: Thyroid function tests: guidelines for interpretation in common clinical disorders. *Postgrad Med* 1989;85(5):333-340,345-350,352.
2. Haas S: Elevated thyroxine and free thyroxine in euthyroid patients: familial dysalbuminemic hyperthyroxinemia. *SD J Med* 1990;43(3):5-7.
3. Ziporyn T: Rare hyper-,hypothyroid states require unconventional therapies news. *JAMA* 1985;253(6):737-739, 743.
4. Sawin CT: Hypothyroidism. *Med Clin North AM* 1985;69(5):989-1004.
5. Leslie PJ, Toft AD: The replacement therapy problem in hypothyroidism. *Baillieres Clin Endocrinol Metab* 1988;2(3):653-669.
6. Ridgway EC, Cooper DS, Walker H, et al: Peripheral responses to thyroid hormone before and after L-thyroxine therapy in patients with subclinical hypothyroidism. *J Clin Endocrinol Metab* 1981;53(6):1238-1242.
7. Rubinoff H, Fireman BH: Testing for recovery of thyroid function after withdrawal of long-term suppression therapy. *J Clin Epidemiol* 1989;42(5):417-420.
8. Sisson JC: Medical treatment of benign and malignant thyroid tumors. *Endocrinol Metab Clin N Amer* 1989;18(2):359-387.
9. Mandel SJ, Larsen PR, Seely EW, Brent GA: Increased need for thyroxine during pregnancy in women with primary hypothyroidism. *NEJM* 1990;323:91-96.
10. Sawin CT, London MH: 'Natural' desiccated thyroid: a 'health-food' thyroid preparation. *Arch Int Med* 1989;149(9):2117-2118.
11. Bevan JS, Munro JF: Thyroxine malabsorption following intestinal bypass surgery. *Int J Obes* 1986;10(3):245-246.
12. MacDougall IR: Treatment of hyper- and hypothyroidism. *J Clin Pharmacol* 1981;21(8-9):365-384.
13. Salman K, Miller JL, Rose LI: Selection of thyroid preparations. *Am Fam Phys* 1989;40(5):215-219.
14. Fish LH, Schwartz HL, Cavanaugh J, et al: Replacement dose, metabolism, and bioavailability of levothyroxine in the treatment of hypothyroidism: role of triiodothyronine in pituitary feedback in humans. *NEJM* 1987;316(13):764-770.
15. Davis FB, LaMantia RS, Spaulding SW, et al: Estimation of a physiologic replacement dose of levothyroxine in elderly patients with hypothyroidism. *Arch Int Med* 1984;144(9):1752-1754.
16. Wennlund A: Variation in serum levels of T₃, T₄, FT₄ and TSH during thyroxine replacement therapy. *Acta Endocrinol (Copenh)* 1986;113(1):47-49.

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2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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Practical Alternatives to Homologous Blood Transfusions

Robert E. Van Demark Sr, MD, Editor

Patients are becoming increasingly concerned about receiving homologous blood from unknown people, largely because of the publicized occurrence of AIDS cases attributable to blood transfusions. This has been publicized in hemophiliac children. The risk of receiving an HIV positive unit of blood has been estimated at 0.04%. According to the Dr John Ward Center for Disease Control, a total of 2,213 AIDS cases have been reported following blood transfusions through January 2, 1989.

In addition, blood transfusion needs have almost doubled in the past few years while blood collections are now running at about 30% above the past decade. The need for alternatives is becoming increasingly apparent.

A hemoglobin level of 10g is often used as an indication for pre-operative transfusion.¹ Recently this has been questioned. Many patients have undergone anesthesia and surgery safely with levels as low as 8g. This has been the case in surgical procedures involving patients having religious objections to blood transfusions where treatment with iron and nasal oxygen has been the only alternative.

Directed blood transfusions have been considered controversial.²

In most instances pre-deposited autologous blood is the best alternative for elective surgery. The maximum period for pre-storing liquid-packed red cells is 42 days. Blood can be taken until 72 hours before surgery if the hematocrit is 34%. Patients can, if desired, usually predeposit three units. These programs are being used with increasing amounts in orthopedic surgery. They deserve further utilization because of their safety and efficacy.³

Autologous blood salvage and reinfusion,⁴ using the latter intraoperative or post-operatively, is a second alternative. This permits removing activated products of coagulation and the heparin anti-coagulant used in the collection system.

Acute pre-operative hemodilution⁵ can be used under expert anesthesiological supervision. An isovolemic exchange of whole blood with crystalloid or colloid solutions after induction of general anesthesia and before surgery to the extent of two to six units, has not been in common practice here. An intraoperative

hematocrit reading of 0.20 to 0.22 is an indication for transfusing with the "last blood out as being first given."

REFERENCES

1. Stehling LC, Ellison N, Faust RJ, et al: A survey of transfusion practices among anesthesiologists. *Vox Sang* 1987;50:60-62.
2. Kruskall MS, Umlas J: Acquired immunodeficiency syndrome and directed blood donations: a dilemma for American medicine. *Arch Surg* 1988;123:23-25.
3. Toy PTCY, Strauss RG, Stehling LC, et al: Predeposited autologous blood for elective surgery: a national multi-center study. *N Engl J Med* 1987;316:517-520.
4. Kruger LM, Colbert JM: Intraoperative autologous transfusion in children undergoing spinal surgery. *J Pediatr Orthop* 1985;5:330-332.
5. Kafer ER, Isley MR, Hansen T, et al: Automated acute normovolemic hemodilution reduces blood transfusion requirements for spinal fusion. *Anesth Analg* 1986;65:S76.

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Teaming Up For Diabetes Education

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ABSTRACT

Education is a key component in living well with diabetes. Successful management of diabetes is enhanced by a team effort that involves the physician working collaboratively with the patient and informed and concerned health professionals. This article shares insights into the diabetes education process from the perspective of various team members.

National Diabetes Education Week 1990 is October 29 through November 3. This year's theme, "The Rewards of Teamwork", emphasizes the importance of a unified, multidisciplinary approach to diabetes care and education. With the physician as the team leader, and the patient and other health professionals as key team players, the ultimate goal of successful diabetes management can be achieved. Following are the perspectives of each team member and their role in the diabetes education process.

PHYSICIAN. In many acute illnesses, the patient plays a dependent role, passively receiving care from the physician. Through the physician's knowledge and the technology of therapy, the illness is cured. In contrast, successful diabetes management demands active, educated patients who accept the responsibility to perform those activities that will control their disease. Proper diet, weight loss, vigorous lifestyle, home glucose testing, consistent use of medications: it is through these efforts that the patient, not the physician, can control the diabetes. Patients must learn that they are actively responsible for their own good health. The key to achieving this level of cooperation is through diabetes education.

The role of the primary care physician in the diabetes team is to oversee and direct the patient's total diabetes care. Just as important, the physician's actions and attitudes must support and give validity to the concept of ongoing diabetes education. Through both the initial education process when the diagnosis of diabetes is first made and then continued periodic refresher training throughout the patient's life, the patient can achieve and maintain a level of enthusiasm, motivation, and knowledge necessary for good diabetic health.

The diabetes team complements the physician's own effort at patient education. The diabetes education team members have the knowledge of diabetes coupled with the skill in the process of teaching and the luxury of time to devote to each patient. Their expertise in educating patients can make a critical difference in the long-term successful outcome of diabetes management. The key to diabetes management is education, and the key to education is the diabetes team.

PATIENT. The patient is, in many respects, the most important member of the diabetes team, for he/she is ultimately in charge of the disease. The patient has the responsibility of communicating questions and concerns to the appropriate team members, carrying out instructions to the best of his/her ability, and accepting the consequences (good and bad) of his/her actions. Correspondingly, the patient has the right to honest and understandable responses to his/her questions and concerns, accurate and current information about diabetes management, and assistance in coping with the course of the disease.

While the content of the information patients receive cannot be overemphasized, the personal contact with

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and approach of each team member are equally as important. This concept is best conveyed in the following excerpt from an article written by a patient for "The Diabetes Educator Newsletter", a new publication of the South Dakota affiliate of the American Diabetes Association.

Patience education is a very important aspect of patient education for the diabetic...from the beginning I hated everything...so I quit doing it. Then the diabetes educator started visiting me...I purchased a glucose monitor...I was taught how to give myself injections. From that point on I took charge of my diabetes. My doctor was a "team" leader. He was patient and supportive of me. The other team members were so wonderful that I would not be where I am today without them...when they visited me every day, regardless of my disposition, they were pleasant, concerned, confident, and empathetic. They helped me see that I could get better and that I could really be in charge of my disease. They helped me to learn to live...it was truly the patience on the part of my "team" that helped me learn and grow.

NURSE EDUCATOR. The nurse educator provides patients with the tools to learn as much as possible about their bodies, how the body is affected by diabetes, and what they can do to control their diabetes and live healthy lives: Specific topics covered by the nurse usually include basic facts about diabetes, exercise, medications, blood glucose monitoring, complications, foot care, hyperglycemia, hypoglycemia, and sick day management. The nurse also helps the patient individualize the diabetes treatment regimen to his/her current lifestyle, set goals for the future, and keep records to monitor progress toward these goals.

Another role of the nurse is that of liaison between the patient and other team members. The nurse educator establishes a sound element of trust with patients and provides support, understanding, encouragement, and reliability. All of these factors enable the nurse educator to help patients meet the challenge of living with diabetes.

Oftentimes, the nurse educator is the one who coordinates the team effort and ensures ongoing follow-up for diabetes care and education. An awareness of community resources helps the nurse to guide the patient and family toward programs that will be most helpful for them. The ultimate goal for the nurse educator is to provide patients with the knowledge and skills necessary for them to take responsibility for their own diabetes care and health outcomes.

REGISTERED DIETITIAN. Nutrition is a complex science that requires the knowledge and specialized skills of a registered dietitian. Persons with diabetes cannot live a healthy life and control their disease with medication alone. Diet is the cornerstone of all diabetes therapy. The dietitian has a vital role in ad-

ressing the total health needs of the patient with diabetes.

Many patients believe that they eat a very healthy diet and do not need diet instruction. After all, we all eat, so we must know how to eat right...right? Wrong! The diabetes meal plan involves the proper balance among carbohydrates, proteins, and fats. A consultation with a registered dietitian is essential for understanding this balance and the proper distribution of food among the six food groups.

Individualization is the key to a meal plan that the patient can live with and use for a lifetime. Printed diet sheets contain the basics, but do not always accommodate the patient's preferences and lifestyle. A review of dietary principles with the dietitian at least once a year will also help with compliance and provide ongoing follow-up. In addition, this follow-up allows the dietitian to reevaluate the nutritional adequacy of the meal plan, taking into account the patient's age, height, weight, and lifestyle.

REGISTERED PHARMACIST. Have you considered the local pharmacist as a resource person for diabetes education? Almost all persons with diabetes see the pharmacist on a regular basis to obtain insulin, oral hypoglycemics, and/or diabetes monitoring supplies. Patients often consult the pharmacist for their over-the-counter medication needs in order to ensure that the medications will not adversely affect their diabetes control. The pharmacist may also see these same patients with respect to their secondary disease states, i.e. hypertension, heart disease, neuropathy, and nephropathy. In other words, the pharmacist is often the patient's most frequent contact with the health care system.

The pharmacist is well versed in therapeutic options regarding care. When patient compliance is in question, he/she may be able to design a drug regimen that is more tolerable for the patient. Patients frequently have concerns about the number of drugs or the number of doses per day that they are required to take. These issues can be addressed in at least two ways. First and foremost, the pharmacist can instruct the patient on the role of each medication in the drug regimen. By educating the patient about the medication and the necessity of compliance with the dosing schedule, about 50% of the patients will improve their compliance for a period of time. The pharmacist's involvement in the patient's care will also allow him/her to be alert for non-compliance. Second, the pharmacist can review the drug regimen and attempt to reduce the number of drugs or the number of doses by using long-acting drugs, combination drugs, etc.

Community and hospital pharmacists can provide valuable information for local diabetes support groups. They can discuss topics such as the drugs frequently used for persons with diabetes or use of over-the-counter medications. Individual drug counseling can

also be provided when needed. Be sure to include the pharmacist as an important member of the diabetes team.

CONCLUSION

Other health professionals who may be part of the diabetes team include social workers, psychologists, and exercise physiologists. Many professionals who care for and educate persons with diabetes have completed a national exam to become a Certified Diabetes Educator (CDE). Referring your patients to a CDE gives you the assurance that the health professional has achieved basic competence in the area of diabetes education. The American Diabetes Association also has a Recognition process for diabetes education programs that meet the National Standards for Diabetes Patient Education, another assurance of quality information for your patients.

November is National Diabetes Month. Resolve to recognize the importance of diabetes education and the team approach by learning about the resources in your area and using them. "The Rewards of Teamwork" do become evident when health professionals work collaboratively to improve life for all persons with diabetes.

For more information about diabetes and the education resources in your area, call the American Diabetes Association, South Dakota Affiliate at 335-7670 (Sioux Falls and vicinity) or 1-800-658-4502.

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South Dakota Society Of Pathologists

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American Medical Association-Education and Research Foundation (AMA-ERF)

In the eight years that I have belonged to the South Dakota State Medical Auxiliary, I have become aware of some confusion and misinformation regarding AMA-ERF. It is for this reason I have felt it necessary to devote an article to the topic, hopefully, making it clear to all physicians exactly what this segment of the auxiliary is all about.

In December of 1950, the AMA Board of Trustees established what was known as the American Medical Education Foundation (AMEF) to support medical education. The AMEF Board of Directors decided any contributions collected would be given to the medical schools through another organization called the National Fund for Medical Education (NFME) which at that time was headed by former President Herbert Hoover. During this time medical schools were operating at a \$10 million deficit per year. AMEF's specific purpose was to raise \$2 million from the medical community and NFME planned to raise \$8 million.

A goal of \$1 million was set for the first year by the AMEF Board of Directors. The project was heavily promoted in the Journal of the *American Medical Association (JAMA)* and other publications. Requests were made to physicians and medical associations, but only \$640,000 was raised. The AMA then continued to contribute \$500,000 yearly until 1955 when budget cuts made it necessary to reduce the amount to \$100,000. In 1953, the AMA asked the AMA Auxiliary to help with this project. Contributions quickly grew, averaging over \$1 million annually since the auxiliary's involvement.

In 1956, AMEF and NFME ended their association thus hoping to improve the fund-raising efforts of each organization. The first year this proved successful for AMEF when it raised \$1.2 million. The following year the American Medical Research Foundation (AMRF) was formed to raise money for medical research. AMEF and AMRF merged in 1962 to form AMA-ERF.

The AMA-ERF Guaranteed Loan Program was also formed in 1962 and during the next eighteen years physicians and pharmaceutical companies contributed money to guarantee over \$95 million in bank loans before the program was forced to be suspended in 1980 due to economic conditions.

Today AMA-ERF is comprised of several different funds of which the **Medical School Excellence Fund** is

the oldest and largest. Since its beginning, over \$46 million has been given to medical schools to use as they wish. The **Development Fund** is used at the discretion of the AMA-ERF Board of Directors to support pilot and experimental health and medical programs. There are also **Categorical Funds** for specific research areas and the **Medical Student Assistance Fund** which was begun in 1983 to provide funds for medical schools to use in direct financial aid to students.

In the past forty years AMA-ERF has given over \$51 million to medical schools. All of this is through the efforts of auxiliaries and physicians who believe in supporting quality medical education.

As I have mentioned in a past news article this year AMA-ERF surpassed their goal by raising \$2,050,350.25. South Dakota played a part in achieving this goal and was recognized for the second largest per capita contributions nationwide. The AMA-ERF goal for 1990-91 is \$2.2 million.

Throughout our districts there are many successful methods for fund-raising. A rather easy method has been suggested by National to help South Dakota maintain and hopefully increase its contributions. Each year many physicians contribute to their alma mater. The South Dakota State Medical Auxiliary could also receive credit if the checks were sent to your district AMA-ERF chairman or our state AMA-ERF chairman, Anne Barlow, 5545 Pine Tree Drive, Rapid City, South Dakota 57702, with a notation as to which medical school the money should be given. Those alumni who receive special benefits with their contribution should check with their schools to determine if this is acceptable.

This is not a new method for South Dakota. District One (the Aberdeen area) has ranked the largest per capita in our state for a number of years and this is largely due to this type of contributing.

If you are already making a donation to your medical school, please consider giving your district and South Dakota credit for this contribution. Your support is greatly appreciated. #

Jacelyn Slingsby

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Council Meeting Highlights

The Council met in Sioux Falls, SD, on Friday, September 21. Following are highlights from that meeting.

1. **NEW COUNCILORS.** Two new councilors were seated: Lucio Margallo, MD was seated as the second councilor from the Mitchell District, and John Malm, MD was seated as councilor from the Rosebud District.
2. **STUDENT/RESIDENT MEMBERSHIP.** The Council voted to encourage student/resident membership and participation by asking active members, districts, and/or physician groups to pay dues for students (\$10 per year) and residents (\$20 per year), invite them to meetings and introduce them to activities of organized medicine. They also suggested that an active member physician be assigned to all new doctors in an area, inviting and accompanying them to district meetings, the annual meeting and other activities and encouraging them to join their district and state associations.
3. **TELEPHONE COMPLAINTS.** The executive office was directed to report telephone complaints received concerning physician services, charges, etc. to the physician for information. Even though some calls may be anonymous or they may be without merit, it does give the doctor information from the patient's perspective and may be helpful in establishing office procedure, etc.
4. **MEDICAL CARE IN RURAL SD.** The following resolution was adopted: Resolved, the SDSMA recognizes the increasing need for medical care providers in rural South Dakota and encourages the continued use of physicians, physician assistants and nurse practitioners supervised by South Dakota physicians and licensed by the South Dakota State Board of Medical and Osteopathic Examiners; recognizing that this has been a successful approach to providing medical care in rural communities, the State Medical Association endorses continued implementation of this health care approach to meet the needs of rural South Dakota.
5. **1991 ANNUAL MEETING.** The format has been changed somewhat - the scientific session will be on "National Trends" and will be held Friday morning concluding with a renowned speaker for the noon luncheon. Friday afternoon will remain open for specialty society meetings. The AMA-ERF special event will be on Wednesday evening just prior to the official opening of the annual meeting.
6. **PUBLIC OPINION SURVEY.** Lawrence and Schiller, a Sioux Falls public relations firm, will con-

duct a state-wide public opinion survey for SDSMA. Results from this survey will be used to develop a public relations program for SDSMA.

7. **SDSMA MEMBER DIRECTORY.** The 1990-91 member directory will not be published this fall. Instead the Council directed that a directory be published in the spring of 1991, and if financially feasible, this will be a pictorial directory.
8. **HONORARY LIFE MEMBERS.** The following were elected to honorary life membership by the Council: James Vose, MD, Mitchell; T. A. Angelos, MD, Canton; Karl Wegner, MD, Sioux Falls; E. H. Heinrichs, MD, Vermillion; and pending approval by the district society, Robert McGee, MD, Aberdeen; and Dennis Epp, MD, Freeman.

The next Council meeting will be on Friday, November 16, in Pierre, SD. #

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Future Meetings

December

A Comprehensive Series of AMA Workshops to Improve the Financial and Operational Vitality of Your Practice, Chicago, IL, Dec 4-7. 5 workshops: Fee: Ins Processing & Coding \$195; ICD-9 Coding for Drs Offices \$195; Advanced CPT-4 Coding \$140; Medical Collections Management \$140; and Business Side of Medicine \$195. Contact: AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

Durable Power of Attorney in Health Care, Sioux Valley Hosp Aud., Sioux Falls, SD, Dec 6 at 7 pm. Contact: Ellen Schellinger, Ctr for Biomedical Ethics, Sioux Valley Hosp, PO Box 5039, Sioux Falls, SD 57117-5039. Phone: (605) 333-6381.

Cardiopulmonary Intensive Care Conference, Pillsbury Auditorium, Hennepin County Med Ctr, Minneapolis, MN, Dec 6-7. Fee: \$195. 11 hrs AMA Category I credit. Contact: Robin Hoppenrath, Mgr, CME Office of Academic Affairs, Hennepin County Med Ctr, 701 Park Ave, S, Ste 4512, Minneapolis, MN 55415. Phone: (612) 347-2075.

Cardiopulmonary Medicine: A Comprehensive Review of Principles and Practice, Holiday Inn East, St Paul, MN, Dec 6-8. Fee: \$245. 16 hrs AMA Category I credit. Contact: Registrar, CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Gearing Up for Retirement, Chicago, IL, Dec 8. Fee: \$275. 3 hrs AMA Category I credit. Contact: AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

Cancer Pain Management Conference, Hyatt Regency Hotel, Minneapolis, MN, Dec 8. Fee: \$90. 6 hrs AMA Category I credit. Contact: Off of Academic Affairs, Hennepin County Med Ctr, 701 Park Ave, Suite 4512, Minneapolis, MN 55415.

Two AMA Workshops: Starting Your Practice and Joining a Partnership or Group Practice, Chicago, IL, Dec 13-15. Fee: \$395. 12 hrs AMA Category I credit. Contact AMA, Dept of Practice Management, 515 N State St, Chicago, IL 60610-9986. Phone: 1-800-366-6968.

January

Pulmonary Function Testing Workshop, St Paul-Ramsey Med Ctr, St Paul, MN, Jan 23-25. 18-23 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Nutrition Update in Clinical Practice, Golden Hills Resort, Lead, SD, Jan 25-26. 9 hrs AMA Category I credit. Contact: Brian Hurley, MD, USD School of Medicine, PO Box 5046,

Sioux Falls, SD 57117-5046. Phone: (605) 339-6790.

February

Issues in Pediatrics Conference, Arrowwood Resort, Alexandria, MN, Feb 9-10. 8 hrs AMA Category I credit. Contact: Sue Heinze, Children's Hospital MeritCare, 720 Fourth St, N, Fargo, ND 58122. Phone: (701) 234-5737.

9th Annual Park City Eye & Facial Plastic Surgery Conference, Olympic Hotel, Park City, UT, Feb 9-12. Contact: Marge Adey, Coord of CME, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-6100. Phone: 1-800-228-9630.

July

9th Annual Medical Seminar, Plummer's Great Slave Lake Lodge, Northwest Territories, Canada, July 20-27. 23 hrs AMA Category I credit. Sponsored by North Memorial Medical Center and U of Minn, Dept of Family Practice; and St John's Regional Health Center, Springfield, MO. Contact: (612) 588-9478.

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

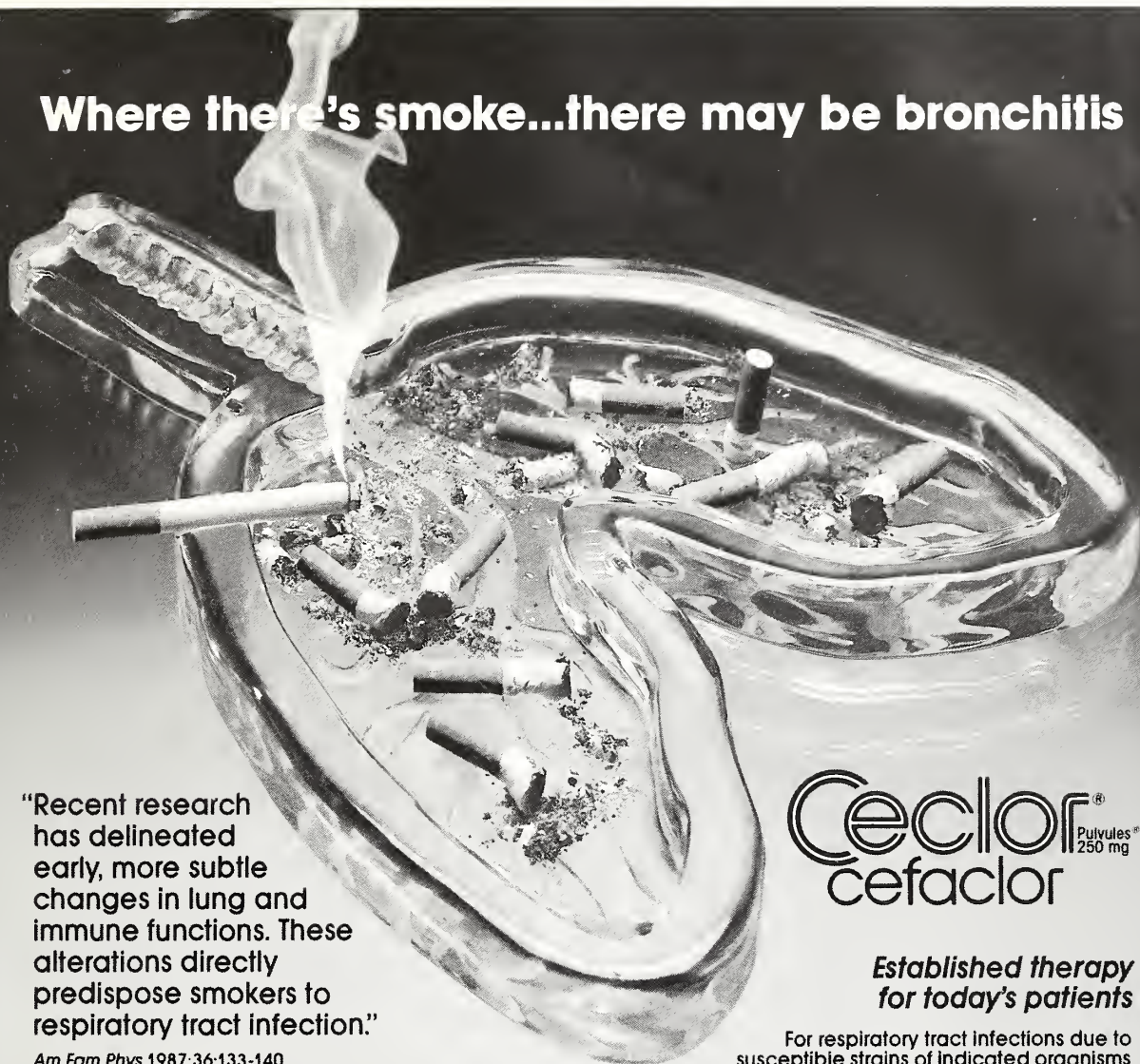
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- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

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Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypotonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.
- Abnormalities in laboratory results of uncertain etiology.**
- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
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*Wishing you a Beautiful Holiday
Season and a New Year of Peace
and Happiness*



*From the Staff
South Dakota State Medical Association*



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About the Cover
Christmas in the Capitol. Pierre, SD. (Photo courtesy of the South Dakota Department of Tourism. Photographer Paul Horsted.)



South Dakota Foundation for Medical Care

Our entire organization joins in sending

Season's Greetings

with every good wish for the new year!



South Dakota Foundation for Medical Care

President's Page



Jerome A. Eckrich, Jr, MD, President, South Dakota State Medical Association

In this age of modern technology, the aphorism, "fly if you have the time," still seems to apply. I had intended to attend the North Central Conference in Minneapolis and report on its proceedings to the membership on November 3rd and 4th, however, due to a combination of mechanical malfunctions and a blizzard in Minneapolis I was unable to attend the meeting. I would, however, like to share some perspectives on the Canadian healthcare system with the membership.

I recently read an article by Bernard J. Perey, MD, FRCS, FACS, Professor of Surgery at Dalhousie University and Victoria General Hospital, Halifax, Nova Scotia, Canada. As both an academic and a Canadian physician, I thought his viewpoints were particularly interesting to us who practice medicine in the United States. Dr Perey stated that although the Canadian healthcare system was generally quite popular with the public it serves, it was not without its problems. He also felt that the Canadian system could not be adopted in the United States without fundamental changes because the delivery of health care in any country reflects its culture, its values, and its beliefs, as well as its political system and resources. Interestingly enough, he stated that Canadians give more importance to the maintenance of minimum standards of health, wealth, and education for all citizens than to the pursuit of high peaks of excellence by a few individuals and institutions. Under the Canadian Constitution, health and education are provincial responsibilities. Conse-

quently, Canada has ten separate provincial systems. Under the Canadian plan the federal government shares costs with the provinces and five established conditions have been established according to the medical care act of 1966. According to this legislation, medical care must be comprehensive; universal, covering all permanent residents regardless of their ability to pay; portable, covering Canadians moving from province to province; reasonably accessible regardless of ability to pay, and not for profit, must be publicly administered.

There is also a government monopoly on the purchase of covered healthcare services, which prohibits the Canadian public from buying insurance coverage in the private sector. In order to play down the importance of high quality health care as a determinant of health, other factors are being emphasized over the quest for ever improving technology within the system. These factors include economics, status, education, life style, social and physical environment, genetics, and legislation. It was pointed out that in 1987, 8.6% of the gross national product in Canada and 11.2% in the United States is spent on health care. A significant part of the difference in cost is derived from the administrative cost of the healthcare system which is about 4% in Canada contrasted to 20% in the United States. The most important explanation by Dr Perey for comparatively low health expenditures in Canada was capping of hospital budgets, fee negotiations with physicians, and controlled access to new and expensive technology. Stated differently, this amounts to no more and no less than rationing of medical care. These factors were noted to contribute to a general tendency toward bed closure, fewer new medical staff appointments, slower growth in the introduction of new methods of diagnosis and treatment, and fluctuating morale among physicians. Physicians must limit access to modern techniques to patients who are most likely to benefit from them. Dr Perey feels that this practice is not necessarily bad as long as patients who would clearly benefit from the technology have reasonable access to it. He, however, recognizes that restricted access to sophisticated technology has occasionally been excessive and has recently led to crises regarding lengthening waiting lists for aorta-coronary by-pass surgery and radiation therapy.

In 1986, Engelhart compared Canada's healthcare system, to "a pressure cooker building up steam on a hot stove." In 1990 he stated that, "the analogy holds but the heat has been turned up". Despite such constraints, provincial authorities are now stating that their budgets indicate that healthcare costs are rising much faster than other areas of government spending. With tight controls on hospital budgets and technology, waiting lists for hospital admissions, operations, and various

other procedures have become part of the way of life for the Canadian public. The most immediate threat to the single tier feature of the Canadian system is the proximity and the ready availability of excellent healthcare centers for Canadians in the United States for those who can afford it. The American system constitutes a potential private system for privileged Canadians.

Even though medical care is available to all citizens in Canada at no cost, it is interesting to note that difference in life expectancy between high and low income groups was 5.6 years for men and 1.9 years for women in 1986. These figures were interpreted to demonstrate that equal access to health care does not buy equal access to health. Such an emerging philosophy would seem to indicate that the administrators of the Canadian health system are preparing its citizens for more and more rationing of healthcare services. The Canadian government is also accusing the medical schools of straining the resources of the country by continuing to produce too many physicians, particularly specialists. Government officials are increasingly questioning the "relevance" of academic medical programs. There is a growing concern that the Canadian healthcare environment does not encourage innovation and brilliance and it is recognized by the medical profession itself that it has few superstars who practice at the frontiers of medicine. Such an attitude by any

government can only lead to a state of mediocrity. The proposed Canadian solutions for reversing this downhill slide reflect a lack of understanding of the driving force for excellence that a free enterprise system provides. The solutions proposed seem to avoid recognition of this fact and, therefore, don't appear to address the intrinsic nature of the problem.

Suggestions for improving the system include different methods of financing, different methods of healthcare delivery, and different roles for physicians. One of these new roles may be a greater involvement of physicians in the planning and management of healthcare resources. It is also suggested that physicians become formally trained chief medical administrators and that Canadian physicians should show a greater interest in upgrading their own health management skills by taking courses offered by universities and national organizations.

It is felt that the final salvation of the system will largely depend on the quality and foresight of political leaders. To me it appears doubtful that any of the features within the Canadian healthcare system or that any of the suggestions for improving the system would be worthy of emulation by either the administrators or the providers within the American healthcare system. #

Have a Merry Christmas!

Jerome A. Eckrich

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The Rating of Physical Impairment

Robert E. Van Demark Sr, MD, Editor

A fair, uniform and impartial rating of physical impairment has long been the goal of the American Medical Association. In the early 1950's, ratings were too often based on the expertise of opposing legal counsel, insurance adjusters, insurance companies, irresponsible "expert" witnesses, and previous local and state rulings. In 1958, the American Medical Association, after long and careful studies, published its first guide to physical impairment entitled "A Guide to the Evaluation of Permanent Impairment". This was based on the anatomy, physiology, and pathology of individual impairments.

"Evaluation of Permanent Impairment," now in its third edition, has expanded to cover all the common impairments in the fields of spine and pelvis, the nervous system, respiratory system, the cardiovascular system, the hematopoietic system, the visual system, ear, nose, throat and related structures, the digestive system, the urinary and reproductive systems, the endocrine system, the skin and mental and behavioral disorders. Not only does it cover individual impairments, but also combinations of impairments with their sum totals.¹ The disability is given in percentages of impairment of the individual or part. It does not set fees. It has become the gold standard for disability impairment rating in the United States.

Unfortunately, the South Dakota Workmen's Compensation law remains basically what it was in the first half of the century. It varies greatly from the surrounding states.² It does not recognize impairment ratings of the "Guide to Physical Impairment". The law has been modified from time to time. For example, the last legislative session passed a law permitting the patient's choice of physician (proposed by the labor lobby with the neutral position of the Medical Association).

The legislature appointed a special committee to study the problems of the old law.³ No solution was found. Several months of study is well summarized by one member who said, "it's like trying to grab onto Jell-O".³

A fair impairment rating system is a basic need. The present chaotic situation affords the State Medical Association an opportunity to give a positive basic improvement to the problem. Based on the monumental work of its parent organization, this opportunity should not be deferred by pressure influences of those with overriding self-interest and conflicts of interest.

REFERENCES

1. Guidelines to Evaluation of Permanent Physical Impairment, 3rd Edition, 1988, pages 245-248.
2. The Workmen's Compensation Law, Editorial, *SD J Med* 1989;42:11, Feb.
3. Argus Leader, Oct 6, 1990. No Real Solutions in Sight on Workmen's Compensation. #

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Dr. Holwick outside of hospital where she practices as a civilian traumatologist



Dr. Holwick in operating room at Letterman Army Medical Center

JANN L. HOLWICK, M.D.

General and Trauma Surgeon.
Captain, U.S. Army Reserve.

EDUCATION University of Southern California, B.S.;
University of California School of Medicine.

RESIDENCY Harbor General Hospital—UCLA
Medical Center.

HOSPITAL AFFILIATIONS St. Luke Hospital;
Huntington Memorial Hospital, Pasadena, California;
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- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%; and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
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Unusual Transient Erythroblastopenia in a Nine Year Old Boy

Marwan D. Hanna, MD¹
Philip J. Mattheis, MD²

ABSTRACT

The case of erythroblastopenia in a nine-year old boy who was healthy prior to the rapid onset of anemia is presented. There was no previous personal or family history of anemia or congenital anomaly. The initial Hgb was 4.0 gram/dl requiring the need for PRBC transfusions; the MCV was elevated throughout the course of disease. Continued erythroblastopenia after 8 weeks of observation prompted treatment with prednisone to which the anemia rapidly responded; and hematologic values have remained normal more than 1 1/2 years after discontinuation of steroid therapy. The case is discussed in the context of a diagnostic differentiation between transient erythroblastopenia of childhood (TEC) and Diamond-Blackfan Anemia (DBA); since it does not clearly fit either category it could either be an unusual TEC presentation with extended macrocytic anemia dependent on steroid therapy for remission, or a late onset DBA with potential for eventual relapse.

INTRODUCTION

Pure red cell aplasia in children may be a congenital condition termed congenital hypoplastic anemia or Diamond-Blackfan anemia (DBA),¹ but is more commonly an acquired process. The mechanisms are not always understood, but associations have been reported with drugs, toxins, infections, immune mediated disorders, neoplasms, malnutrition and renal failure as well as aplastic crises of chronic hemolytic anemias.²⁻⁴ In most cases, a carefully documented history and a few basic laboratory studies are sufficient to make the diagnosis.

Transient erythroblastopenia of childhood (TEC) is a diagnostic entity of apparent immune-mediated etiology which is increasingly being invoked to explain hypoplastic red cell anemias in the very young. Recent literature contributions addressing this disorder include case reports,⁵⁻⁷ discussions of diagnostic considerations,⁸⁻⁹ and investigations of mechanism.¹⁰⁻¹²

In young children without obvious primary causes of hypoplastic bone marrow, the differential diagnoses are essentially limited to DBA and TEC. The distinction is usually not difficult to make given the typical differences in RBC characteristics between the two (i.e.

MCV, red cell enzyme activity etc)⁸ and the self-limiting course of TEC.

In this paper we present a patient who displayed elements of both DBA and TEC, with no clear resolution of the diagnostic dilemma.

CASE STUDY

A previously healthy nine-year old male was referred to our hematology clinic with complaints of pallor and fatigue of several weeks duration; there were no significant findings on history and physical examination except for slight tachycardia at rest (90/min) and Hgb 4.0 gram/dl.

History revealed no recurrent or chronic infection, cough, hemoptysis, melena, hematuria or symptoms of malabsorption. Family history was negative for malignant or chronic disease, anemia or congenital anomalies.

Physical examination revealed a well-developed, well-nourished boy (at 70th percentile for height and weight) with severe pallor but in no distress. There was no evidence of infection, lymphadenopathy, hepatosplenomegaly, jaundice or purpura. He had a tachycardia (90/min) and a grade II/VI systolic ejection murmur at the cardiac apex.

Laboratory Data:

HgB 3.5 gm/dl, MCV 109fl, retic ct 0.2%, WBC 3,600/cumm with 30% segs, 13% bands, 51% lymphs, 6% monos and normal platelets. Blood group was A +

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and direct antiglobulin test was negative. Total Serum Fe was 48 microgram/dl (normal values: 35-171), TIBC 265 microgram/dl (221-481), transferrin saturation 18% (normal 16-36%) serum ferritin 256 ng/ml (7-140). Serum vitamin B12 was 965 pg/ml (200-1000) and serum folate was 7 ng/ml (3-18) BUN was 16 mg/dl and serum Cr was 0.7 mg/dl. RBC G6PD activity was undetectable. Peripheral smear showed macrocytic anemia with occasional teardrops and oval macrocytes. Bone marrow aspirate showed marked erythroid hypoplasia, especially deficient in immature precursors, with no apparent deficit in myeloid or platelet precursors or maturation.

Course of Disease

The patient was admitted to the hospital and transfused with 5 cc/kg packed RBCs which raised his hemoglobin from 3.5 gm/dl to 4.9 gm/dl. He was given an additional 10cc/kg PRBCs on the second day, and discharged to weekly follow-up of hematologic parameters by his pediatrician. (See Table I)

The patient, on return at 7 weeks to our clinic, was seen without improvement of his anemia. A repeat bone marrow again showed erythroid hypoplasia with dysplastic erythroid precursors, 3% erythroid and myeloid (non-lymphoid) blasts and a normal myelopoiesis. Peripheral blood smear revealed persistent macrocytic anemia, with marked anisocytosis, many elliptocytes, and oval macrocytes. G6PD activity at this time was normal.

A course of prednisone was begun at 2 mg/kg/day, to

which the patient rapidly responded. (See Table I) This regimen was tapered after two weeks and discontinued after four weeks.

Blood values improved with normal red blood cell morphology as shown in Table I and have remained normal up to 1 1/2 years after discharge.

DISCUSSION

DBA and TEC present similarly in young children with insidious onset of moderate to severe anemia manifested by pallor and lethargy. Reticulocytopenia and erythroblastopenia of bone marrow are present without abnormalities of platelet and white cell precursors or maturation. There is some overlap of age at presentation though DBA individuals tend to be younger (DBA: 90% less than 1 year old, TEC: 80% 1-4 years old.⁸)

DBA has been associated with congenital anomalies (eg thumb abnormalities, webbed neck) and growth failure^{1,6} and may be familial, with at least two inheritance patterns suggested; an autosomal recessive or an autosomal dominant with reduced penetrance. The anemia of DBA requires treatment, usually responding to corticosteroids, though more intensive immunosuppressive therapy or bone marrow transplant may be necessary. Many cases of steroid-responsive DBA require life-time steroid regimens.⁹ TEC, in contrast, is not associated with congenital anomalies or familial tendencies and growth is normal. A hallmark is anemia in a previously healthy child. The anemia is self-limited, requiring no treatment beyond occasional supportive

TABLE I
Hematologic Values of Patient

Time	Hgbm/dl	Hct %	Rectic ct %	MCV fl	WBC/cumm	Comments
1 wk prior to admit	4.0	N/A	N/A	107	4600	
Day 1 hosp	3.5	11.0%	0.2	109	3600	
Day 2 hosp	4.9	13.9%	N/A	101	2700	HgBg post transf
10 day after disch	6.1	19.1%	0.4	N/A	5700	
2 wk after disch	7.2	21.4%	2.1	N/A	6300	
3 wk after disch	6.4	18.7%	0.3	N/A	7400	
4 wk after disch	5.9	17.8%	0.2	N/A	5200	
5 wk after disch	6.7	19.6%	0.5	N/A	6600	
7 wk after disch	6.1	18.5%	1.4	103	3700	Pred started
9 wk after disch	14.3	N/A	5.7	92	N/A	Pred tapered
11 wk after disch	11.7	N/A	4.3	108	N/A	Pred disc
12 wk after disch	11.3	N/A	4.2	99	N/A	
*23 wk after disch	14.3	39.9%	1.2	83	N/A	
1 1/2 year	15.5	N/A	1.2	N/A	N/A	

*Normal red blood cell morphology

Legend: N/A = not available

blood transfusions. The dyserythropoiesis of DBA appears to be due to defective and deficient progenitor differentiation,¹³ while studies of the pathogenesis of TEC seem to indicate inhibition of erythropoiesis in otherwise normal erythroid precursors. Several mechanisms of inhibition have been suggested in TEC including immunomediation, primarily by IgG, though IgM activity has also been described.^{10,11} Cell mediation seems to explain the inhibition seen in other cases where immunoglobulins were not found to be involved.¹² Immune mediated inhibition has been documented in DBA as well.¹⁴

Several red blood cell characteristics (MCV, i antigen, Hgb F, erythrocyte enzyme activity) have been suggested as the primary means to differentiate DBA from TEC. In TEC, erythrocytes show features expected of older red cell populations,⁸ whereas in DBA a reversion to fetal erythropoiesis seems to occur as a hematopoietic response to marrow suppression,¹⁵ and manifests as increased MCV and red cell enzyme activities as well as elevated fetal hemoglobin and the presence of i antigen red blood cells.

The patient presented here is older than the normal range for both DBA and TEC and has no family history of anemia or congenital anomalies. On initial presentation to his pediatrician his anemia was consistent with TEC in recovery (MCV 107 fl). Lack of spontaneous recovery after 8 weeks of macrocytic anemia, with rapid response to corticosteroids is unusual for TEC, and sustained hematologic remission without steroid dependency is unusual for DBA. (Table II)

Although the pathogenesis of TEC appears to be variable, and the natural history of this disorder is usually quite predictable; some exceptions have been reported. Freedman and Saunders¹² reported a ten-year old girl with hepatosplenomegaly and positive antinuclear factor, and Freedman¹⁶ reported a patient with typical findings of TEC who had a prolonged course with recurrence of anemia and was found to be responsive to steroids.

Unusual presentations of DBA have also been reported such as later age of onset of symptoms and variable clinical severity.¹⁷ Most of these cases had chronic or recurrent mild anemia prior to onset of symptoms, or had musculoskeletal defects consistent with the diagnosis of DBA.

The patient presented here may be another atypical

TABLE II			
	TEC	DBA	Patient
Age of onset	80% between 1-4 years	90% less than 1 year	9 years old
Congenital Abnormalities	None	Yes(30%)	None
Steroid Treatment	No Self limited	Yes	Yes
Fetal Erythropoiesis	During Recovery phase (Brief)	Yes	Increased MCV returned to normal with recovery

TEC; however, the age of the patient and the extended course of the macrocytic anemia, which is steroid responsive though not steroid-dependent also suggests a less severe manifestation of DBA and may in fact represent an intermediate form. Perhaps further analyses of other atypical cases will

help to differentiate clearly between TEC and DBA.

ACKNOWLEDGEMENT

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REFERENCES

1. Diamond LK, Wang WC, Alter BP: Congenital hypoplastic anemia. *Adv Pediatr* 1976;22:349-378.
2. Gasser C: Aplasia of erythropoiesis. *Pediatr Clin N Am* 1957;4:445-468.
3. Kho LK, Odang O, Thajeb S, et al: Erythroblastopenia (pure red cell aplasia) in childhood in Djakarta. *Blood* 1962;19:168-180.
4. Alter BP, Nathan DG: Red cell aplasia in children. *Arch Dis Child* 1979;54:263-267.
5. Wegelius R, Weber TH: Transient erythroblastopenia in childhood. A study of 15 cases. *Acta Paediatr Scand* 1978;67:513-518.
6. Labotka RJ, Maurer HS, Honig GR: Transient erythroblastopenia of childhood. Review of 17 cases, including a pair of identical twins. *Am J Dis Child* 1981;135:937-940.
7. Gerrits GPJM, Van Oostrom CG, de Vaan GAM, et al: Transient erythroblastopenia of childhood. A review of 22 cases. *Eur J Pediatr* 1984;142:266-270.
8. Wang WC, Mentzer WC: Differentiation of transient erythroblastopenia of childhood from congenital hypoplastic anemia. *J Pediatr* 1976;88(5):784-789.
9. Glader BE: Diagnosis and management of red cell aplasia in children. *Hem Oncol Clin N Am* 1987;1(3):431-447.
10. Koenig HM, Lightsey AL, Nelson DP, et al: Immune suppression of erythropoiesis in transient erythroblastopenia of childhood. *Blood* 1979;54(3):742-746.
11. Dessypris EN, Krantz SB, Roloff JS, et al: Mode of action of the IgG inhibitor of erythropoiesis in transient erythroblastopenia of childhood. *Blood* 1982;59(1):114-123.
12. Freedman MH, Saunders EF: Transient erythroblastopenia of childhood: varied pathogenesis. *Am J Hem* 1983;14:247-254.
13. Lipton JM, Kudisch M, Gross R, et al: Defective erythroid progenitor differentiation system in congenital

hypoplastic (Diamond Blackfan) anemia. *Blood* 1986;67(4):962-968.

14. Steinberg MH, Coleman MF, Pennebaker JB: Diamond-Blackfan Syndrome: evidence of T-cell mediated suppression of erythroid development and a serum blocking factor associated with remission. *Brit J of Hem* 1979;41:57-68.

15. Alter BP: Fetal erythropoiesis in stress hematopoiesis.

Exp Hem 1979;7(Supp 5):200-209.

16. Freedman M: Recurrent erythroblastopenia of childhood. An IgM-mediated RBC aplasia. *Am J Dis Child* 1983;137:458-460.

17. Balaban EP, Buchanan GR, Graham M, et al: Diamond-Blackfan syndrom in adult patients. *Am J Med* 1985;78:533-538.

New Physicians

The following physicians recently began practicing medicine in South Dakota.

Ramona Peshek, MD, completed her family practice residency this past spring at the Sioux Falls Family Practice Center and began practice at the Brown Clinic in Watertown. Dr Peshek is originally from Fairfield, Nebraska. She received her medical degree from the University of Nebraska Medical Center in Omaha in 1987.

Dr Peshek holds membership in AAFP, SDAFP, AMA, SDSMA and the Christian Medical-Dental Society. She served as secretary/treasurer of the UNMC Chapter of the Christian Medical-Dental Society in 1984-85. During the past year, Dr Peshek served as director of athletic events for the Sioux Falls Family Practice Residency. She arranged medical coverage for Sioux Falls School District athletic events. She is presently serving on the McKennan Hospital Utilization Review Committee.

Richard L. Kafka, MD, a native of Wagner, recently moved his family to Gregory to join the staff at the Rosebud Family Clinic and the Gregory Community Hospital.

Dr Kafka attended USD and in 1979 began working for the State of South Dakota as a forensic chemist. He went back to school after deciding to become a family practice physician and received his medical degree from USD School of Medicine in 1987. He completed a 3-year family practice residency at the Siouxland Medical Education Foundation in Sioux City, Iowa.

Dr Kafka and his wife, Roberta, have 2 children, Benjamin, age 3, and Amanda, 7 months.

Another physician to start practice in Gregory is **Dr Andrew N. Clark**. He received his bachelor of arts degree at Drake University in Des Moines, Iowa, in 1982, and his medical degree at the University of Iowa, Iowa City, in 1987. He completed a 3-year family practice residency at the Siouxland Medical Education Foundation in Sioux City before coming to South Dakota.

Dr Clark and his wife, Patty, are expecting their first child.

After completing a 2-year fellowship in nuclear medicine at the University of Minnesota and an elective rotation in PET (positron emission tomography) scanning procedures at UCLA, **Dr Fred C. Lovrien** has returned to Sioux Falls to work with the W. A. Boade MD, Ltd, a company specializing in providing nuclear diagnostic services to rural and outreach locations.

Dr Lovrien is a 1973 graduate of the University of Iowa College of Medicine. He is board certified in internal medicine and endocrinology, and board eligible in nuclear medicine. He practiced in Sioux Falls for many years in endocrinology at Central Plains Clinic; he was a clinical associate professor of internal medicine at the USD School of Medicine; and on the teaching staff for family practice programs at McKennan and Sioux Valley Hospitals and was cited as Residency Program "Teacher of the Year" at both.

The Huron Clinic announced that **Sonja Wyckoff, MD**, a gynecologist, recently joined their staff.

Dr Wyckoff, a native of Orange, California, received her medical degree from the University of California, Irvine Medical School in 1971. She completed an internship at Hoag Memorial Hospital, Newport Beach, California in 1973 and Kaiser-Permanente, Orange, California in 1976. Dr Wyckoff then completed an obstetrics-gynecology residency at the University of California, Irvine in 1976. She practiced in Cedar City, Utah, from June 1976 to the present.

Dr Wyckoff and her husband, Dr Robert Sigfrid, a veterinarian, have 3 children and 4 grandchildren.

Dr James MacDougall, orthopedic surgeon, has joined the Aberdeen Association of Orthopedic Surgeons in Aberdeen. He is a native of Cleveland, Ohio; received his medical degree at the Ohio State University College of Medicine, Columbus, Ohio, in 1985; he completed a general surgery internship in 1986 at the Ohio State University Hospitals; and an orthopedic surgery residency in 1990 at the Ohio State University Hospitals. He is a board eligible orthopedic surgeon.

#

Diabetes ? and the Native American

Roscoe E. Dean, MD
Wessington Springs, SD

A study comparing the medical work-ups of fifty Native American and fifty white patients, age fifty and over, from the same area who were admitted consecutively to a rural hospital in Wessington Springs, South Dakota, was reported in 1976, and published in the *South Dakota Journal of Medicine*, Volume 24 Number 1. It was a detailed and difficult paper to read and I am sure never received the study it merited. For that reason, I have summarized the pertinent facts and I am submitting the results for further review in hopes that it will stimulate more investigation.

Twenty-five of the Native American patients had significantly elevated fasting blood sugars with signs and symptoms of diabetes mellitus. Only five of the white patients in this group were diagnosed diabetic.

	Native American	White
1. Average age	<u>64</u>	<u>72</u>
2. Average weight		
- men	177 lbs	165 lbs
- women	158 lbs	152 lbs
3. Definite evidence of peripheral vascular disease	23	15
4. Average <u>fasting</u> blood sugar the day after admission was	<u>175</u>	<u>129</u>
5. Average blood pressure	143/79	144/77
6. BUN (blood urea nitrogen)	19	21
7. Cholesterol (At that time, the significance of triglycerides was not recognized)	192	206

Our laboratory studies were provided or monitored by the Laboratory of Clinical Medicine, Sioux Falls, SD.

As near as I can determine, the symptoms of coronary insufficiency and peripheral vascular disease did not exist in Native Americans when they ate their originally available food. Pipe smoking was a part of every Council but the red inner bark of the willow rather than tobacco was generally used. One of my most loyal Native American friends, Emma Fire Cloud once commented; the thing her people appreciated the most that had been brought by the Was-Si-Cuns (white traders), was sugar and tobacco. The "Old Ones" spoke of alcohol with scorn but it has become a significant part of



Emma Fire Cloud



Eugene Brother of All

the diet of many Natives now.

A Native American leader, Eugene Brother of All, (Ce-Ya-Pe), whose grandfather was chief warrior and bodyguard for the famous Chief Drifting Goose, once commented that the disease, diabetes, was unknown in their native culture. He referred to it as a condition where, "You get fat and then melt away". Eugene was a friend and a patient for many years. He died at the age of seventy from the complications of diabetes.

The author is an officially adopted member of the Yanktonae band of the so-called Sioux. #

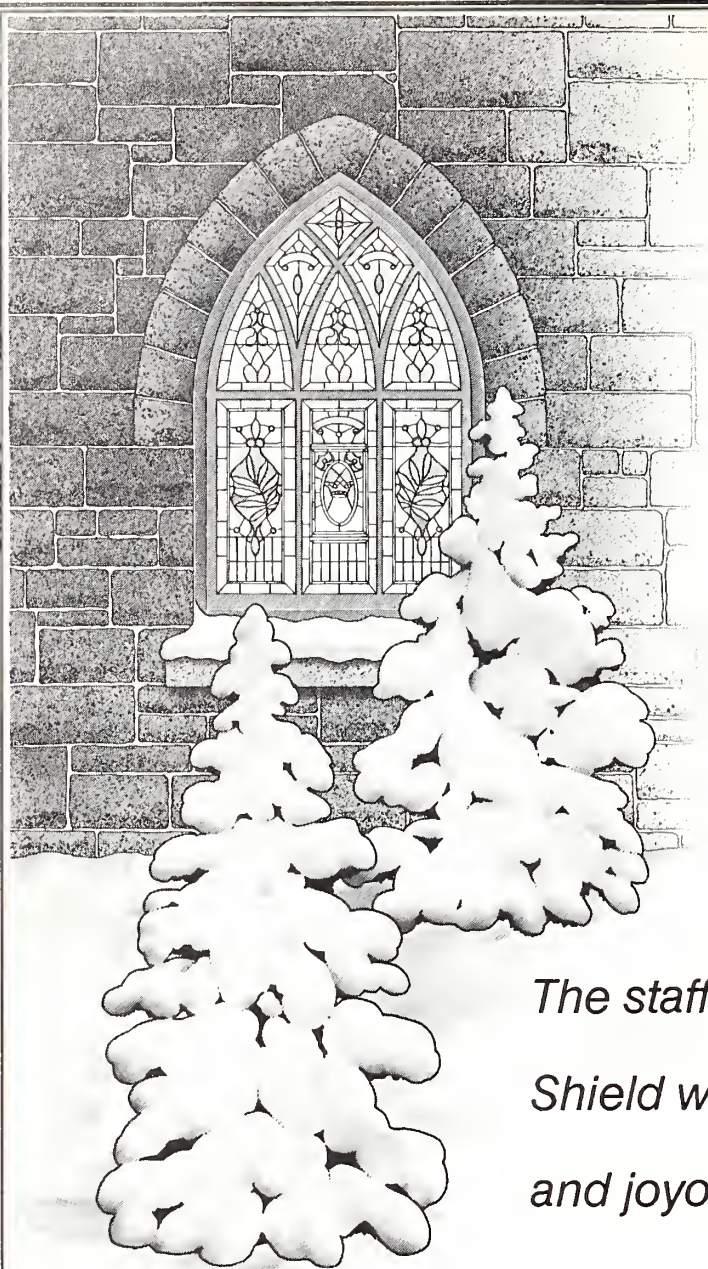
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Who Can Decide?

Richard P. Holm, MD*

ABSTRACT

The constitutionally provided "right of self-determination" can be lost when an individual's mental "capacity to choose" is affected by medical or psychiatric illness. "Competency" is a court-determined definition. However, physicians are expected to know how to determine "capacity to choose". This medical responsibility has become clear in the light of recent United States Supreme Court and South Dakota legislative action. The complexity of this issue is discussed, and a testing method for "capacity" is described.

The Constitution of the United States of America provides us with the right of self-determination. This protection of individual freedom gives all of us the right to informed consent, to the making of a will, to the management of our own financial affairs, and it covers various other freedoms as well. We can lose this right if our mental "capacity to choose" (competency) becomes impaired by physical or psychiatric illness.¹

It is important for physicians to know when competency is questioned, why it is a complex issue, and how "capacity to choose" is determined. This position paper emerges from new South Dakota legislation that mandates physicians to know about the competency issue. It represents my personal views.

When is Competency Questioned?

American courts have taught medical people a painful lesson in the past forty years. If surgery or any medical treatment is provided without first obtaining informed consent, that treatment can be defined as battery. Physicians have to face the competency question any time we seek consent for any treatment. If the patient is not capable of giving consent for any reason, then the physician must find a "substituted judgement".²

When the patient is unconscious, or obviously impaired, this is straightforward and without dispute. The water gets muddy, however, when the patient is conscious and has a borderline mental capacity. Generally in this situation the competency question is only raised after a family member, or the physician or a friend, observes a "poor" choice made by the patient.

An example in the medical arena might be when Grandpa chooses not to have the "necessary" surgery, or when he chooses not to take the medicine as directed. In another arena the competency question might arise when family members disagree with what Grandpa has

done in his will and someone starts vying for a change.

In any case when someone sees Grandpa making poor choices, a physician may be asked to determine if Grandpa has the mental "capacity to choose", and if there is a medical reason for this behavior. Next, the court may be asked to determine whether or not the patient is "competent" or "incompetent". Competency is a court-determined definition. The physician's role is to determine the person's "capacity".

Prior to July 1990, the law in South Dakota required a court to appoint a guardian for incompetent patients in order to give informed consent when medical treatment was needed. This year the Legislature made a new law legitimizing what has been standard practice for a long time. Now, a family hierarchy for medical decision-making is automatically established whenever a physician determines the patient is unable to choose for him or herself. With the new law the court is consulted for guardianship or health care consent purposes only if someone is dissatisfied and asks for the court's intervention.⁴

Recently the U.S. Supreme Court in the Cruzan case has moved toward protecting the patient's "liberty interest" allowing avoidance of unwanted medical care if this is their expressed wish given when "competent". Again, competency is the question.

Why is This Issue so Complex?

There are several factors that complicate this issue. On the one hand you want to protect your patient from his or her decision which you perceive as a bad choice, while at the same time you want to protect his or her autonomy. That can be a difficult dilemma. Human nature might have you, the physician, give too much significance on the consequences of the patient's "bad" choice and not give enough to the real issue -- the patient's "capacity". In fact the authorities recommend leaning in the direction of autonomy if it comes down to

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the line.³

Another factor that makes the question of competency difficult is that people with dementia or psychosis can come in and out of an illness, waxing and waning in their capacity to choose, changing with the disease process, with medication dosing and even with the time of the day. Take that one step further. If a person receives medical or psychiatric treatment that is successful, then the capacity to decide may return. The question of "capacity" must be an ongoing issue.

What's more, from jurisdiction to jurisdiction, the definition of competency can vary. One judge may accept one standard and another judge might be more or less stringent. Some jurisdictions even use a sliding scale, allowing decisions according to the level of capacity and the gravity of the decision. That really complicates the issue.

How to Determine "Capacity to Choose"

First of all you should perform a careful history and physical examination, including appropriate laboratory testing. Larson and others found in 107 demented outpatients that 50% had previously unrecognized and yet treatable medical problems, and that 25% had improved mental capacity after treatment of their medical problems. You must recognize the influence of medical illness or medication on a person's capacity to choose.

If recent onset organic dementia is an issue, then, besides performing a careful exam, it's good medicine in most cases to obtain a CT scan of the head, thyroid tests, a B12 level, and probably a VDRL. This would define causes of reversible dementia. Degenerative dementia, (Alzheimer's) is a diagnosis of exclusion and accounts for more than 50% of dementias.

The mental status exam is important, particularly in defining organic from psychiatric illness. The DSM III from the American Psychiatric Association defines dementia as loss of social function, loss of memory, and loss of complex cortical thinking. (See Table I)

Libow and Sherman developed a mental status protocol which can be very helpful and practical for evaluating a patient for dementia. The scoring is "1" for

good function, "2" for impaired function and "3" for poor function. They suggest evaluating the patient by seven parameters, rating the patient 1 to 3 according to each parameter and then adding up total numbers for the final score. The method uses the mnemonic FROMAJE, which is French for "cheese". (See Table II)

Table II

F	is for <u>function</u> or global cognitive ability: (how well do they "function" at home?)
R	is for <u>reasoning</u> or abstract thinking: (eg. what is the meaning of "He who lives in glass houses..." etc?)
O	is for <u>orientation</u> : (time, person, place situation)
M	is for <u>memory</u> : distant (where did they grow up?); recent (who's the president); and immediate (remember three objects for five minutes).
A	is for <u>arithmetic</u> or numerical testing: (count 1-20, backward from 100, by "7s", etc).
J	is for <u>judgement</u> : (eg. what to do if the house is burning?). (I might note that the correct way to spell cheese in French is with a g but we bent the rules here in this case.)
E	is for <u>emotional status</u> : (Are they flat, labile, appropriate, etc?).
A score of "7" is ideal and Libow and Sherman define "11" or higher as demented. Remember DSM III puts weight on "function" and "memory".	

This method for defining dementia has been tested in the Brookings community nursing homes. We surveyed both institutions in 1984 and again in 1988 using this testing method 267 times. We found it easy to use and consistent with the opinion of the head nurse in each nursing home concerning the presence or absence of dementia. There are other systems for doing the same thing which also may be used.^{8,9}

It is also important to emphasize that a person does not have to be demented to be incompetent. For example, people with emotional disability may not have decision-making capacity.

Appelbaum and Grisso² explained that legal standards for competency fall into one of the following four categories.

- 1. the ability to communicate choices;
 - 2. the ability to understand relevant information about the question (treatment choices, etc);
 - 3. the ability to realize possible results of the choice;
 - 4. the ability to use logical processes to come to a decision.
- People with severe emotional impairment may even

Table I
DSM III Definition for Dementia

- 1. Loss of social/occupational function
- 2. Loss of memory (antegrade first)
- 3. Loss of one of the following:
 - a. abstract thinking
 - b. judgement
 - c. personality change
 - d. higher cortical function
 - 1. agnosia (recognition)
 - 2. aphasia (naming)
 - 3. apraxia (using)

make the "right" choice but come to it in a bizarre, illogical way. If a court is using the fourth standard mentioned above for defining competency, then a person thinking in that way would be "incompetent".

Again, I must make a practical point that decision-making capacity may fluctuate with the time of day, fatigue, drugs, and illness, so that more than one evaluation may be necessary.

It is also important to understand that when a patient is uncooperative and will not answer questions, it may be impossible to define "capacity". In this situation it is acceptable in an emergency to turn to the family for substituted judgement.³

SUMMARY

Physicians have been charged both nationally and in South Dakota with the responsibility to know how to determine "capacity to choose". The question comes up when informed consent is needed for medical treatment, and in various other situations. Determining the patient's "capacity to choose" can be extremely difficult in cases of borderline and fluctuating mental capacity. A straightforward clinical method to do this is presented here.

Finally, the most difficult and important concept presented is keeping the right balance between protecting the patient from bad choices versus protecting the patient's freedom to choose. There will come the time when the question sits evenly on the fence. I think that at this point, we must fully realize the value of nobility of the individual, and lean in the direction to protect the patient's freedom.

REFERENCES

1. Marzen TJ: Medical decision-making for the incompetent person: a comprehensive approach. *Iss on Law and Med* 1986;1(4):293-317.
2. Appelbaum PS, Grisso T: Assessing patient's capacities to consent to treatment. *NEJM* 1988;319:1635-1638.
3. Levenson SA: Ethical and legal issues in geriatrics: competence and patient choice. *Maryland Med J* 1986;35(11):933-937.
4. Gerdes DA: New legislation affecting procedures for health care consent. *So Dak J Med* 1990;43:23-27.
5. Larson EB, et al: Dementia in elderly outpatients: a prospective study. *Am Int Med* 1984;100:417-423.
6. Sabin TJ, et al: Reversible nursing home dementia. *JAMA* 1982;248:321.
7. Libow LS, Sherman S: The Core of Geriatric Medicine. St. Louis. CV Mosby Co, 1981.
8. Folstein MF, Folstein SE, McHugh PR: "Mini-mental state": a practical method for grading cognitive state of patients for the clinician. *J Psychiatr Res* 1975;12:189.
9. Pfeiffer E: Short portable mental status questionnaire. *J Am Ger Soc* 1975;10:433-441. #

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Our Youth at Risk?

Great attention has recently focused on the young people in this country. *Time Magazine* (Oct 8) devoted a cover story to this topic following the United Nations World Summit for Children. Most Americans probably do not feel our youth are so endangered but as that magazine article explained there are serious problems our country must address.

This past month two district president-elects, our state president-elect and I attended our National Auxiliary Confluence in Chicago. This meeting is held twice annually to prepare auxiliaries for their leadership roles. This concern for our young people was the main theme for the meetings relating to health issues. Reference was made to the *Time Magazine* article several times by different speakers. We had an opportunity to hear from several AMA faculty members who are very knowledgeable on the youth crisis topic and are also directly involved in the AMA projects relating to adolescent health.

The AMA has recently published a book titled Volume One-America's Adolescents: How Healthy Are They? It is a compilation of statistics on adolescent health and will be an excellent tool for those working with or in the interest of adolescents. The statistics that were quoted were alarming!

Two specific projects the AMA has recently become involved with were featured. Code Blue-Uniting for a

Healthier Youth is a product of a joint effort by the National Association of State Boards of Education (NASBE) and the AMA through the creation of the National Commission on the Role of the School and the Community in Improving Adolescent Health. This commission's members include educators, health professionals, clergy, children's advocates, and business, entertainment, political and civic leaders who plan to use the **Code Blue** report to help unite the efforts of many organizations in addressing the adolescent health problems.

Healthier Youth by the Year 2000 is another project introduced by the AMA and the AMA National Coalition on Adolescent Health to promote the development of effective programs and policies for improving adolescent health. It addresses the adolescent portion of another larger project the **Year 2000 Health Objectives for the Nation**. The Year 2000 objectives are the result of long range planning to protect the health of our nation in the next century. Some of the activities associated with this project include the creation of the Year 2000 Task Force to be made up of a variety of national organizations including the AMA Auxiliary to promote adolescent health, the creation of National Adolescent Health Promotion Network (NAHPNet) to identify individuals concerned with adolescent health and the publication of TARGOT 2000, a newsletter for NAHPNet members.

The details of both of these projects will become more apparent as we begin to see a focus on adolescent health by various organizations in our communities and also the possibility for each of you to become involved in the development of such programs. It is exciting to see such emphasis placed on these problems by joint efforts because just as there is no one cause for the youth crisis there is also no one solution.

As we approach the end of the decade there is greater awareness to the problems facing our youth and I am encouraged to see the AMA taking a leadership role in addressing the situation. With projects such as **Code Blue** and **Healthier Youth by the Year 2000** now established we can expect our future generation to achieve their potential.

I wish all of you and your families a very Happy Holiday Season and the best for the New Year. #

Jacalyn Slingsby

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McKenna Poison Control Center Annual Report 1989

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The purpose of this article is to present the McKenna Poison Center's activities and poisoning data for 1989. A summary of the history of McKenna Poison Center will be described. Statistics and trends from 1989 will be provided, along with a description of some of the activities and projects presently undertaken. Future direction and potential problems will be discussed.

HISTORY

In 1965, McKenna Hospital established a Poison Center in the emergency department. A formal poison committee was formed in 1975. In 1978, a contract was negotiated with Rocky Mountain Poison Center, using "Officer Ugg" as its official logo. Emergency physician coverage provided for physician consultation coverage to be available on a 24 hour basis. In 1980, a change to affiliation with Hennepin County and the National Poison Control Network was accomplished and "Mr Yuk" became the logo. At this point in time, the Poison Center was receiving about six calls a day. In 1982, we dropped affiliation with Hennepin and affiliated with the American Association of Poison Control Centers, and "Captain Smart" was developed as our own unique logo. Also in 1982, the Poison Center transferred operations to the central pharmacy of McKenna Hospital with conversion of call handling from RN's to pharmacists. In December of 1982, the Poison Center received a grant of \$75,000 from McNeil Laboratories to help establish a regional poison center. In March of 1984, the first statewide promotion of Poison Prevention Week involving pharmacies throughout the state was organized. By April 1985, the center had received

a \$2,500 grant from Burlington Northern Foundation to develop the Captain Smart Activity Book on childhood poison prevention. Since 1985, the medical director of the poison center has been a board eligible or certified toxicologist. In June 1985, Pam Oines, Poison Center Coordinator, developed the *Farm Chemical Book* to provide safety and poison information for farm pesticide handlers. In January of 1986, the Poison Center received a grant from the Gannett Foundation to purchase a computerized PoisindexTM allowing for more rapid accessing of information and making printouts available for admitted patients. From 1983 until the present, further attempts to expand had led to poison network affiliations with other centers such as Marian Health Center in Sioux City, Iowa, and St. Luke's-Midland Hospital in Aberdeen. Call volume has expanded yearly to the present number of 5,493 in 1989.

ANNUAL REPORT 1989

The annual reports are prepared from data report forms filled out on each poison call. These forms are collated by the Cooperative Data Collection Program of the American Association of Poison Control Centers and sent back to participating centers as a guide to further program and activity development.

In 1989, the McKenna Poison Center documented 5,493 calls or an average of 15 calls per day. Of these, 4,478 (81.5%) were exposure calls (4,445 or 99.2% human and 33 or 0.79% animal) and 1,015 (18.5%) were information calls. Accidental exposures accounted for 89% of the exposures. Intentional and adverse reactions accounted for 10.4% and 0.4% of exposures respectively. Ingestion (3,545 calls or 75.4%) was the most common route of exposure, with parenteral, bites/stings, and dermal routes increasing as compared to 1988 (Table I). Two year old children were the most frequent age group involved (924 cases - 20.8%) with five year olds and younger age groups accounting for the majority of cases (63.2% of total calls). Males made up 50.4% and females 48.7% of calls with the sex not

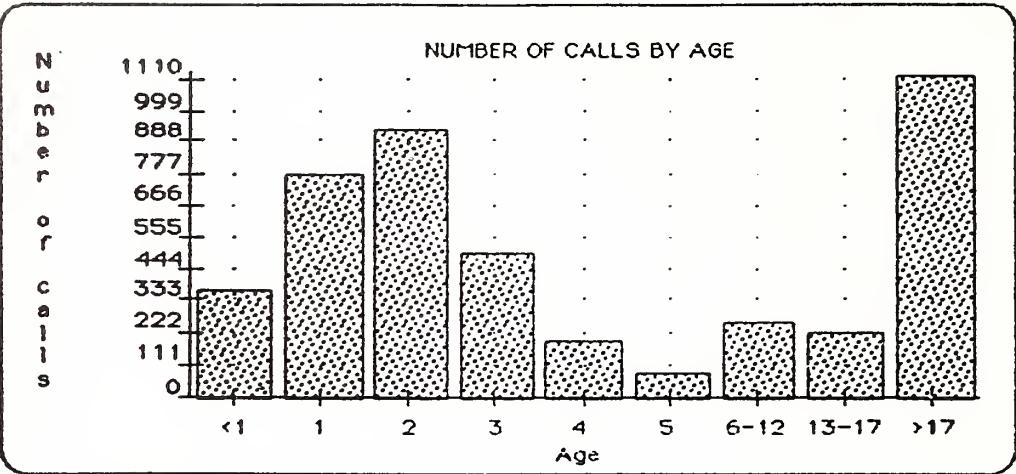
1. Emergency Room Physician, and Medical Director, McKenna Poison Control Center, Sioux Falls, SD.
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Table I

	1988	1989	Change	%Change
TOTAL CALLS	5489	5493	4	(+) .001%
Ingestion	3766	3545	221	(-) 5.9%
Inhalation	220	203	17	(-) 7.7%
Ocular	335	331	4	(-) 1.2%
Permal	398	433	35	(+) 8.8%
Bite/Sting	86	111	25	(+) 29.1%
Parenteral	11	26	15	(+) 136.4%

documented in 0.9% of the cases (Table II). The majority of calls received originate in South Dakota (3,931). Iowa is the other predominating state producing calls (731). Minnesota (158), Nebraska (103), Montana (47), North Dakota (27), and Wyoming (32) also are the sources of significant number of calls.

Table II



Twenty-nine percent of cases (1,301 calls) were reported as being symptomatic on the initial call. The call came from a health care facility or the patient was referred to a health care facility in 1,230 (27.7%) of calls. Of the 1,180 cases seen in a health care facility, 519 patients were admitted for a total of 1,135 hospital days. The patient refused help in 80 cases. Dilution was the most common method of decontamination recommended. Ipecac syrup was recommended in 10.8% (503) cases. (See Table III) The data collection system allows categorization of calls by substance type. (See Table IV) Poison Center staff have seen various trends in exposure types. Medicines and chemicals of abuse or misuse (alcohols, stimulants/street drugs,

chemicals, heavy metals, and industrial cleaners showed a call increase of 6% to 45%. Herbicide exposures increased 28%, while insecticide/pesticide exposures decreased 9%. Poisoning with prescription medications in the cardiovascular and anticonvulsant groups showed a 20% to 25% increase. Certain trends

can also be seen in the methods of decontamination. These trends seem to reflect a higher degree of severity in the poisoning cases encountered. Ipecac seems to be losing favor, with charcoal use increasing and lavage being used more frequently also. Multiple dose charcoal is frequently coded under "other decontamination" which showed a marked increase.

Observing trends helps the Poison Center personnel to decide which educational and awareness programs deserve the most emphasis and further development.

PRESENT ACTIVITIES

Poison calls are handled on a 24 hour basis, although the pharmacist must handle central pharmacy functions between midnight and 6:30 am. The poison coordinator oversees all activities including quality assurance, promotion, materials development, and education. The medical director provides an element of leadership as chairman of the Poison Committee. The director also reviews quality assurance functions, acts as a liaison between Center staff and emergency consultants, finds faculty for toxicology conferences (or provides lectures), and is available for consult. Each March, National Poison Prevention Week is the center of many activities. A state-wide program for poison prevention education is conducted. A yearly toxicology conference is organized and three other quarterly evening mini-tox conferences are also held. Other times of the year bring participation in the Sioux Empire Fair, Farm Show and Health Fairs. The Kid Safe Program and babysitter clinics are provided quarterly in an effort to target child education. EMT lectures and poison talks to civic groups are also common activities. Public service announcements and interviews along with seasonal press releases are provided. Many educational materials are also made available through the Poison Center such as brochures, Captain Smart coloring books, T-shirt transfers, activity books, and book covers. The *Farm Chemical Book* and farm

Table III				
Method of Decontamination				
	1988	1989	Change	%Change
Ipecac	588	503	85	(-) 14.5%
Activated Charcoal	321	348	27	(+) 8.4%
Cathartic	200	224	24	(+) 12.0%
Dilute	2404	2180	224	(-) 9.3%
Irrigate/Wash	1025	1063	38	(+) 3.7%
Lavage	145	220	75	(+) 51.7%
Fresh Air	107	71	36	(-) 33.6%
Other - Decontamination	28	59	31	(+) 110%

anesthetics e.g. cocaine, art/office supply e.g. "White Out", and unknown substances/drugs) showed an increase in call volume from 15% to 50% from '88 to '89. Work place substance exposures such as hydrocarbons,

Table IV
Categories of Exposure

All poison case calls are categorized by primary substance to which a victim is exposed.

Categories	1988	1989	Change	% Change
Analgesics	659	612	47	(-) 7.1%
Household Cleaners	428	417	11	(-) 2.6%
Cosmetics	354	328	26	(-) 7.3%
Cough/Cold Products	321	306	15	(-) 4.7%
Plants	284	305	21	(+) 7.4%
Insecticides/				
Pesticides	208	189	19	(-) 9.1%
Hydrocarbons	162	208	46	(+) 28%
Vitamins	157	126	31	(-) 19.8%
Antimicrobials	157	164	7	(+) 4.5%
Topicals	152	127	25	(-) 16.4%
Alcohols	146	168	22	(+) 15.1%
Sedatives/Hypnotics	145	149	4	(+) 2.8%
Chemicals	130	144	14	(+) 10.8%
Foreign Bodies	103	117	14	(+) 13.6%
Bites/Envenomation	98	143	45	(+) 45.9%
Gastrointestinal	86	95	9	(+) 10.5%
Antihistamines	80	80	0	(-)
Antidepressants	76	78	2	(+) 2.6%
Cardiovasculars	75	90	15	(+) 20%
Herbicides	72	92	20	(+) 27.8%
Fumes/Gases/Vapors	69	63	6	(-) 8.7%
Stimulants/Street	50	75	25	(+) 50%
Art/Office Supply	48	59	11	(+) 22.0%
Unknown Substances	16	18	2	(+) 12.5%
Unknown Drug	16	34	18	(+) 112.5%
Muscle Relaxants	15	17	2	(+) 13.3%
Anesthetics	14	18	4	(+) 28.6%
Information Calls	13	301	288	(+) 2215.4%
Hormones	69	55	14	(-) 20.3%
Food Poisoning	61	82	21	(+) 34.4%
Paints/Varnishes	60	60	(-)	(-)
Rodenticides	58	61	3	(+) 5.1%
Adhesives	52	44	8	(-) 15.4%
Asthma Products	43	27	16	(-) 37.2%
Deodorizers	39	43	4	(+) 10.3%
Anticonvulsants	39	48	9	(+) 23.1%
Tobacco Products	35	36	1	(+) 2.9%
Fertilizers	31	28	3	(-) 9.6%
Automotive Products	29	36	7	(+) 24.1%
Eye/Ear/Nose/Throat	27	42	15	(+) 55.5%
Mothballs	26	15	11	(-) 42.3%
Batteries	21	20	1	(-) 4.8%
Heavy Metal	20	29	9	(+) 45%
Diuretics	20	19	1	(-) 5%
Building Products	19	10	9	(-) 47%
Dyes	18	8	10	(-) 55.6%
Industrial Cleaners	15	16	1	(+) 6.7%
Veterinary Products	14	14	(-)	(-)
Matches/Fireworks	13	14	(-)	(+) 7.7%
Polishes/Waxes	12	24	12	(+) 100%
Swimming Pool Prod	12	6	6	(-) 50%
Mushrooms	11	20	9	(+) 81.8%
Essential Oils	11	10	1	(-) 9.1%
Misc. Rx/Otic Drugs	8	21	13	(+) 162.5%
Anticholinergics	7	6	1	(-) 14.3%
Fungicides	5	5	(-)	(-)

chemical zone signs are also distributed. Various video tapes are also available through the Center as educational aids. The March 1990 National Poison Prevention Week activities included a luncheon for local and state leaders regarding the Drug Free Zone concept. Support was positive and it is hoped this will lead to a legislative effort in 1991. A state-wide poster contest was held for children ages 10-14. The theme, "One Moment Is All It Takes--To Make The Right Choice", focused on the dangers of non-medicinal use of drugs and alcohol. The Poison Center also sponsored its Ninth Annual Toxicology Conference with a nationally known toxicologist and 86 participants in attendance. Multiple interviews and editorials were also given by Poison Center staff.

The main goal of the McKennan Poison Center is to provide quality poison information to the public and to health care professionals. Emphasis is on prevention and where that fails, treatment recommendations become primary. The Center has been able to function fairly well during its existence. Funding from the mother hospital and grants have been the primary sources of operating income. As with any service provided for free, at least some of the cost burden is passed on to patients. Conferences and affiliate contracts have produced minimal amounts of funding when compared to the efforts involved. Another future goal is to become a Regional Poison Center. The requirements as set by the American Association of Poison Control Centers cannot be met with present personnel, funding, and population base. In the future perhaps a "Statewide Poison Network" with state and other funding would allow fulfillment of the requirements for regionalization. #

Diabetes 2000

Elimination of Preventable Blindness from Diabetes
by the Year 2001

Charles W. Mohler, MD

President, South Dakota Academy of Ophthalmology

Ronald E. Smith, MD

**AAO Secretary for Continuing Education, Diabetes
2000 National Project Director**

Arnall Patz, MD

**Past President, AAO, Diabetes 2000 National Chair-
person**

INTRODUCTION

Diabetes 2000 will parallel a major diabetic retinopathy public information campaign recently announced by the National Eye Institute. The NEI's National Eye Health Education Program (NEHEP), which targets both diabetic retinopathy and glaucoma, is fashioned along the lines of earlier federal initiatives against smoking and high blood pressure.

By continuously updating our medical knowledge and skills related to this multi-system disorder, and by forging partnerships between physicians in the effective and efficient management of diabetic patients, we have a unique and important opportunity -- we can reduce preventable blindness from diabetes by the year 2000.

In no field of medicine is continuing medical education of physicians more critical than in the management of diabetes. Twelve million Americans have diabetes mellitus, and the disease knows no medical specialty boundaries. In addition to being a major cause of morbidity from multi-system complications, such as renal failure, neuropathy, and cardiovascular disease, diabetes is the leading cause of blindness among working-age Americans. It accounts for at least 12% of new cases of blindness every year in the United States. Diabetic retinopathy is often asymptomatic at its most treatable stage, emphasizing the importance of early diagnosis of this retinal complication. New information about diabetes emerges almost monthly as published in some specialty journal, making it mandatory for us to find better ways to "keep up" with advances in this field -- the stakes are simply too high to do otherwise.

In response to the increasing importance of the overall problem of diabetes and diabetic retinopathy, and the availability of improved treatment regimens defined by published clinical trial results, the American Academy of Ophthalmology (AAO) has embarked on a long-term education project designed to more rapidly translate research findings to medical benefits for the American public. The new project -- "Elimination of Preventable Blindness from Diabetes by the Year 2000"

-- or "Diabetes 2000" --- was announced at the AAO's 1989 Annual Meeting.

FACTS ABOUT DIABETIC RETINOPATHY

The majority of diabetic patients have non-insulin-dependent diabetes mellitus (NIDDM, Type II). Usually diagnosed after age 40, Type II diabetic patients may or may not be treated with insulin. Fewer patients have insulin-dependent diabetes mellitus (IDDM, Type I), which is usually diagnosed before age 30. Type I diabetics experience more frequent and severe ocular complications. After 5 years, 23% of Type I diabetic patients have retinopathy; after 10 years, almost 60% have retinopathy; and after 15 years, 80% have it. Proliferative diabetic retinopathy (PDR) -- the most threatening form of retinopathy -- is present in 25% of Type I patients after 15 years and often remains asymptomatic well beyond the optimal stage for treatment.

An estimated 700,000 Americans have proliferative diabetic retinopathy and 500,000 have macular edema. The annual projected incidence of new cases of PDR and macular edema is 65,000 and 75,000, respectively. About 8,000 new cases of blindness a year in the United States are caused by complications from diabetes.

WHAT CAN BE DONE

"Diabetes 2000" provides the means to close the gap between advances in research and changes in treatment patterns. While most physicians are aware of diabetic retinopathy, the AAO's goal now is to focus attention on the importance of early diagnosis and timely treatment of diabetic retinopathy based on the important advances of the last 5-10 years. For example, we now know that timely laser photocoagulation surgery can reduce the risk of visual loss from proliferative diabetic retinopathy by at least 50%. We know that timely laser photocoagulation surgery of diabetic macular edema can reduce the risk of moderate visual loss by 50%. We know that vitrectomy surgery can restore useful vision to some diabetic patients who have advanced diabetic retinopathy.

EFFECTIVE PARTNERSHIPS ARE NEEDED

As the working title implies, "Diabetes 2000" will be a long-term project aimed at a specific disease: diabetic retinopathy and its complications. Several phases are anticipated. Providing the latest research findings to ophthalmologists and other physicians who care for those patients is the first priority, followed by patient and public information. Initially, new advances and treatment guidelines for the medical and surgical treatment of diabetic eye disease will be emphasized through continuing education of ophthalmologists, other physicians, allied health professionals, residents, medi-

cal students, and specialists in diabetes-related education. In later phases, educational programs for diabetic patients and the public will be developed. Ultimately, improved eye care of diabetic patients is expected as a result of closer collaboration between the physician primarily responsible for the care of the patient's systemic illness, the patient, and the ophthalmologist. Since diabetic patients can be asymptomatic despite significant progression of diabetic retinopathy, the importance of a renewed and improved partnership between the ophthalmologist and the patient's primary physician is critical.

Because of the ambitious goal and long time-frame, many other medical organizations and public groups are involved in Diabetes 2000. Representatives from various medical specialties, government agencies, and other organizations devoted to problems of the diabetic patient have been invited to participate. Since diabetes is a complex, multi-system disease, whose overall management is the responsibility of physicians other than ophthalmologists, "Diabetes 2000" will stress involvement of other physicians and medical specialty organizations in the planning and implementation of the project. The importance of finding ways to develop effective partnerships between the patient's primary physician, the ophthalmologist, and the patient in the management of diabetic eye disease is a major goal. Another important aspect of the project is the identification and promotion of existing diabetes eye health programs around the country, such as the Center for Disease Control (CDC) Diabetes Translation Project. The AAO will encourage ophthalmologists to participate in national, regional, and local programs that are already in operation, as sponsored by such organizations as the American Diabetes Association, the Juvenile Diabetes Foundation, Lions Clubs, and others.

SOUTH DAKOTA OPHTHALMOLOGISTS ARE PARTICIPATING

Educational materials are being developed and demonstration projects are underway in some states to encourage ophthalmologists and other physicians to participate in continuing education programs concerned with the overall management of diabetic retinopathy. A Preferred Practice Pattern on diabetic retinopathy is available through the offices of the American Academy of Ophthalmology (415-561-8500). This document provides the latest information concerning the management of diabetic retinopathy. The South Dakota Academy of Ophthalmology is actively involved in this national initiative. Ophthalmologists in South Dakota are eager to help develop the necessary educational and service programs that will achieve this goal.

REFERENCES

1. Kupfer C: The challenge of transferring research results into patient care. *Ophthalmology* 1989;96:737-738.
2. Preferred Practice Pattern: Diabetic Retinopathy, American Academy of Ophthalmology, 1989. #

Theophylline Toxicity

James A. Klicpera, MD
Everett, Washington

Theophylline toxicity resulting from overdose has been recognized for a long time as a potential problem when using this drug in the management of reactive airways disease. It is now recognized that elevated temperature lasting 24 hours or longer and probably many viral infections can significantly alter the clearance of theophylline resulting in elevation of serum theophylline levels into the toxic range. Seizures with permanent severe brain damage may occur as a result of high serum theophylline levels. Please have your members who use this drug review the medical literature regarding the safe use of theophylline. Consider using other medications first before using theophylline. If theophylline is used, keep serum levels between 5-15 ug/ml instead of the 10-20 ug/ml range and should fever or viral infections of 24 hours duration or longer occur, reduce the dose of theophylline by one-half during that illness or if that is not safe then monitor theophylline levels more carefully.

REFERENCES

- Koren G, Greenwald M: Decreased theophylline clearance causing toxicity in children during viral epidemics. *J of Asthma* 1985;22(2):75.
- Kraemer MJ, et al: Altered theophylline clearance during an influenza B outbreak. *Peds* 1982;69:476.
- Weinberger M: Theophylline toxicity and viral infections. *Peds* 1982;70:508.
- Weinberger M: Managing Asthma. Williams & Wilkins, Baltimore, 1990. #

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Future Meetings

January

Pulmonary Function Testing Workshop, St Paul-Ramsey Med Ctr, St Paul, MN, Jan 23-25. 18-23 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Nutrition Update in Clinical Practice, Golden Hills Resort, Lead, SD, Jan 25-26. 9 hrs AMA Category I credit. Contact: Brian Hurley, MD, USD School of Medicine, PO Box 5046, Sioux Falls, SD 57117-5046. Phone: (605) 339-6790.

February

Advances in Clinical Child Neurology, The 8th Annual Black Hills Neurology Seminar, Holiday Inn of the Northern Black Hills, Spearfish, SD, Feb 7-9. Contact: K. Alan Kelts, MD, Black Hills Neurology, 2929 Fifth St, Ste 240, Rapid City, SD 57701. Phone: (605) 341-3770.

Issues in Pediatrics Conference, Arrowwood Resort, Alexandria, MN, Feb 9-10. 8 hrs AMA Category I credit. Contact: Sue Heinze, Children's Hospital MeritCare, 720 Fourth St, N, Fargo, ND 58122. Phone: (701) 234-5737.

9th Annual Park City Eye & Facial Plastic Surgery Conference, Olympic Hotel, Park City, UT, Feb 9-12. Contact: Coord of CME, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-5651. Phone: 1-800-228-9630.

Bum Care Today, St Paul-Ramsey Med Ctr, St Paul, MN, Feb 15. 7 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Third Annual Perinatal Conference: Caring for Life, Mitchell, SD, Feb 21-22. Fee: \$60. Contact: Goldie Burnham, Dir of Educ, St Joseph's Hospital, Mitchell, SD. Phone: (605) 995-2260. FAX: 605-995-2441.

March

Bioethics Conference, St Paul-Ramsey Med Ctr, St Paul, MN, Mar 1. 3.5 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Neurology in Clinical Practice, Telemark Resort, Cable, WI, Mar 1-3. Contact: Postgraduate Courses, Section of Cont Educ, Mayo Clinic/Mayo Foundation, Rochester, MN 55905. Phone: 1-800-323-2688.

Critical Care, St Paul-Ramsey Med Ctr, St Paul, MN, Mar 7-8. 13 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992.

Diabetes Symposium, U of Neb Med Ctr, Omaha, NE, Mar 8. Contact: Coord of CME, U of Neb Med Ctr, Ctr for Cont

Educ, 600 S 42nd St, Omaha, NE 68198-5651. Phone: 1-800-228-9630.

11th Annual Keystone ENT Ski Conference, Keystone Conf Ctr, Keystone, CO, Mar 10-15. Contact: Coord of CME, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-5651. Phone: 1-800-228-9630.

Family Practice Review, U of Neb Med Ctr, Omaha, NE, Mar 11-22. Contact: Coord of CME, U of Neb Med Ctr, Ctr for Cont Educ, 600 S 42nd St, Omaha, NE 68198-5651. Phone: 1-800-228-9630.

Pediatric Advanced Life Support, St Paul-Ramsey Med Ctr, St Paul, MN, Mar 12-13. 16 hrs AMA Category I credit. Contact: CME, St Paul-Ramsey Med Ctr, 640 Jackson St, St Paul, MN 55101. Phone: (612) 221-3992. #

USD SCHOOL OF MEDICINE INTERDISCIPLINARY CONFERENCES are held on the 3rd Saturday of each month, from 10:00 am - 12:00 noon. These conferences originate at the School of Medicine in Sioux Falls and are videotaped to each School of Medicine location in the state.

AMERICAN MEDICAL TELEVISION on the Discovery Channel every Sunday from 9 am to 11 am, Central Standard Time. This program shows the latest clinical advances, legislative and socioeconomic news and offers CME credit. For more information call 1-800-289-6000.

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VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: **Angioedema:** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: **General Impaired Renal Function.** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of the face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy. Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucosides, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy—Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactively following administration of 14 C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.3%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, linitis, conjunctivitis, dry eyes, hearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: Hypertension: In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance >30 mL/min (serum creatinine up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium <130 mEq/L) and with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION.)

Heart Failure: WARNINGS and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380.

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VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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